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ABSTRACT

Economic impact is defined as the added income created within a given geographical area by a particular institution or resulting from a specific policy action. This analysis, which used data from many sources, including surveys completed by 174 Dickinson employees, considered the economic impact of Dickinson College on Carlisle and Cumberland counties, Pennsylvania. The analysis found three main sources of increased income provided by the existence of Dickinson College: (1) income earned by college employees; (2) income provided to businesses and their employees by the local spending of the college, along with its employees, students, summer program participants, and visitors (including those who visit the professional football training camp held at the college); and (3) the indirect impact created when local workers and owners spend part of their added income locally. The net change in local government spending and tax revenue also has an economic impact. The general conclusions regarding each of these income sources are discussed. Findings show that Dickinson College represents a significant economic, social, and cultural asset for the Carlisle area, particularly through its positive effects on local income, employment, and its various cultural and charitable contributions to the Carlisle community. Appendixes contain the spending surveys and a list of taxable and tax-exempt properties owned by the college. Each chapter lists its sources. (Contains 34 tables and 8 figures.) (SLD)

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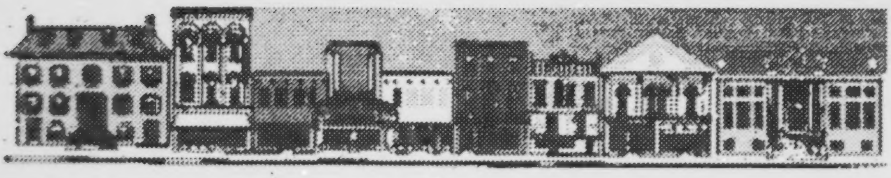

# The Economic Impact of Dickinson College on Carlisle and Cumberland County, Pennsylvania

By

William Bellinger and Danielle McCann*

Dickinson College

September, 2002

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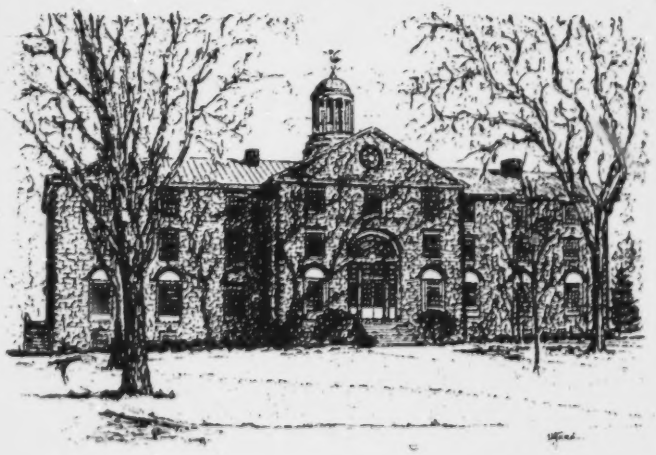

* William Bellinger is an Associate Professor of Economics at Dickinson College. Danielle McCann is a Dickinson College senior majoring in International Business & Management.

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# The Economic Impact of Dickinson College on Carlisle and Cumberland County, Pennsylvania

By

**William Bellinger and Danielle McCann***

**Dickinson College**

**September, 2002**

* William Bellinger is an Associate Professor of Economics at Dickinson College. Danielle McCann is a senior majoring in International Business & Management. Other members of the Economic Analysis of Policy class in the Spring of 2002 also contributed to the project. These students are Meredith Brown, Gwyneth Carmichael, Erin Cowling, Justin Elick, George Gonzalez, William Hagan, Ellaminda Leader, Brendan Lilly, David Moss, Andrew Moult, Richard Pencek, Elizabeth Pickard, Brian Pidgeon, Daniel Schlesinger, Matthew Simpson, James Toth, Grant Violanti, Larry Wagner, Shanna Wiest, and Daniel Zito. Our analysis of the 2002 Summer programs was funded by a Dana summer research grant and a supplementary grant from the administration. The Office of Institutional Research greatly aided the distribution and coding of the employee and student spending surveys. Additional aid was provided by a list of administrators too numerous to mention here. All conclusions and any errors are solely the responsibility of William Bellinger.

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## Summary of Findings

Economic impact is defined as the added income created within a given geographical area by a particular institution, or due to a specific policy action. There are three main sources of increased income provided by the existence of Dickinson College. These include (1) income earned by College employees, (2) income provided to businesses and their employees by the local spending of the College, along with its employees, students, summer program participants, and visitors, and (3) the indirect impact created when local workers and owners spend part of their added income locally. The net change in local government spending and tax revenue also has an economic impact. We will review our general conclusions regarding each of these income sources in turn.

The first source of local income is College employment. By combining Dickinson College budget figures with the reported residence of Dickinson employees, we estimate that Dickinson College employment adds $21,167,000 to total income in the Carlisle borough and $32,166,000 to total income in Cumberland County. The second source of income is the direct spending of the College and its various component groups. Our findings regarding total direct spending are summarized in Table S-1 below. These figures indicate that the clear majority of direct spending

**Table S-1: Total Direct Spending**

| CATEGORY | CARLISLE SPENDING | TOTAL COUNTY SPENDING |
|---|---|---|
| College Purchases | $9,738,636 | $12,676,291 |
| Employee Spending | $7,725,320 | $15,350,535 |
| Student Spending | $3,200,136 | $6,597,848 |
| Visitor Spending | $865,180 | $865,180 |
| Summer School Student Spending | $98,334 | $210,303 |
| Government Budget | $178,872 | $74,949 |
| CPYB Student Spending | $1,518,624 | $1,534,559 |
| CTY Student Spending | $900,801 | $1,028,666 |
| Redskin Camp Spending | $3,000,514 | $2,828,317 |
| Total Spending | $27,226,417 | $41,166,678 |

comes from college purchases and employee spending, which when combined represent 64 percent of College-related spending in Carlisle and 68 percent of total spending in Cumberland County. The various summer programs provide about 20 percent of the total direct spending in Carlisle and about 13.7 percent of total direct spending for the County. We conclude that Dickinson College's main mission, higher education, also provides its primary direct economic impact on Carlisle and Cumberland County.

The third source of added income from the College is the indirect income arising from what economists call the multiplier effect. Through this multiplier process Dickinson's spending creates a ripple effect where those receiving income directly from College spending add further to the economy by spending part of that income in the area. Those receiving income from this secondary spending will in turn spend some of their income locally. Theoretically at least, this process continues in an infinite series of steps.

Our multiplier model for Cumberland County was derived from an input-output model (the RIMS-II model) of Cumberland County provided by the Bureau of Economic Analysis of the U.S. Department of Commerce. The RIMS-II multiplier for higher education in Cumberland County has a value of 1.6961, meaning that each dollar of College spending in the County will eventually produce almost 1.7 dollars of total income. The Carlisle area has a correspondingly smaller multiplier because a significant fraction of spending by local businesses and employees will take place outside of the Carlisle area. The value of this local multiplier is 1.344.

***Total Economic Impact in Dollars***

The total economic impact of the College equals the combined values of the employment income, direct spending, and multiplier effects generated by Dickinson College. For Carlisle this total economic impact equals $57,759,304. This total includes $21,167,000 of income for

Dickinson College employees and $27,226,417 x 1.344, or $36,592,304, in direct and indirect spending for the rest of the Carlisle community. For Cumberland County, the college's total economic impact in terms of total direct and indirect income equals an estimated $101,988,803. This total includes $32,166,000 in Dickinson employee income and $41,166,678 x 1.6961, or $69,822,803, in direct and indirect income for the rest of the county. Adding the estimated implicit value of $1,152,344 from the Dickinson community's charitable activity, which does not necessarily produce a multiplier effect on income, brings these totals to $58,911,648 for the Carlisle area and $103,141,147 for Cumberland County.

The distribution of this economic impact by program or spending source may also be of interest. In calculating the total impact of each program we will apply the same county and local multipliers used in our estimated total impact figures to each source of spending, with the exception of the Washington Redskins training camp for which a multiplier of 1.5 based on the restaurant, beverage and lodging industries is used.

**Table S-2: Economic Impact by Source**

| CATEGORY | CARLISLE DIRECT SPENDING | CARLISLE IMPACT | COUNTY DIRECT SPENDING | CUMBERLAND COUNTY IMPACT |
|---|---|---|---|---|
| College Employee Income | ——— | $21,167,000 | ——— | $32,166,000 |
| College Purchases | $9,738,636 | 13,088,727 | $12,676,291 | 21,500,257 |
| Employee Spending | $7,725,320 | 10,382,030 | 15,350,535 | 26,036,032 |
| Student Spending | $3,200,136 | 4,300,983 | 6,597,848 | 11,190,610 |
| Visitor Spending | $865,180 | 1,162,802 | 865,180 | 1,467,432 |
| Summer School Spending | $98,334 | 132,161 | 210,303 | 356,695 |
| Government Budget | $178,872 | 240,404 | 74,949 | 127,121 |
| CPYB Spending | $1,518,624 | 2,041,031 | 1,534,559 | 2,602,766 |
| CTY Spending | $900,801 | 1,210,677 | 1,028,666 | 1,744,720 |
| Redskin Camp Spending | $3,000,514 | 4,032,691 | 2,828,317 | 4,242,476 |
| Implicit Volunteer Services | ---------- | $1,152,344 | ---------- | $1,152,344 |
| **Total Spending or Impact** | **$27,226,417** | **$58,911,648** | **$41,166,678** | **$103,141,147** |

As seen in Table S-2, the College budget for personnel and the College's local purchases provide about half of the total impact in both the County and the Carlisle Area.

***Total Impact On Employment***

Dickinson College's impact on local employment arises from exactly the same forces as its impact on income. Dickinson creates jobs directly through its own employment opportunities, and indirectly through the effect of its spending on local businesses. This estimate is based on the RIMS-II model's ratio of college employment to total employment for Cumberland County, the employment version of the spending multiplier. This direct employment to total employment multiplier takes the value 1.4043. The formula for applying this value is very straightforward, *total employment = Dickinson employment x 1.4043*. Dickinson college employs a total of 776 individuals. According to the formula, this employment alone would produce total employment for the county of 1,090. Adding the estimated annualized employment from the non-Dickinson summer programs hosted by the College produces an estimated total gain of 1,133 jobs in Cumberland County due to the existence of Dickinson College.

***Alternative Calculations***

We also calculated simpler and more direct income and employment impact estimates from the RIMS-II multipliers to check on the reasonableness of our detailed estimates. For example, the College reported a total budget, net of financial aid, of $68 million dollars for the 2001-2002 academic year. A simple economic impact estimate for Cumberland County can be calculated by multiplying the College's total budget by the county multiplier for higher education, 1.6961. This produces an estimated economic impact for the county of $115.3 million dollars, which is almost 12 percent higher than our detailed estimate. Similarly, a simple employment estimate can be found by taking this same budget number and multiplying by the RIMS-II final demand/employment multiplier value of 18.9928 jobs per million dollars spent. This produces an estimate of 1,292 jobs in the county. This figure is also moderately higher than our detailed estimate of 1,133 jobs. These

simple estimates indicate that our detailed estimates are likely to be reasonably accurate and somewhat conservative.

***Conclusion***

This summary omits a great deal of potentially useful information regarding the characteristics and spending patterns of each group analyzed in this study. For instance this study includes estimates of the direct spending created by the summer programs of the Center For Talented Youth and the Central Pennsylvania Youth Ballet Summer Program, as well as an estimate of the total economic impact of the Washington Redskins training camp. The body of the report also contains a detailed analysis of the sources of the gains and losses to local governmental bodies due to the existence of Dickinson College. Overall however, the impact numbers reported in this summary provide the most general overview of the study's conclusions. As stated in the last paragraph of the study, the most significant challenge for the authors, and perhaps for the reader, is to imagine what Carlisle would be like without its more than two-hundred year association with Dickinson College. Such a thought clarifies the challenges associated with completing such a study and the interesting issues arising from its conclusions.

# Chapter I. Introduction

This study estimates the economic, social, and cultural impact of Dickinson College on Carlisle Pennsylvania and Cumberland County. Economic impact studies of this sort are quite common, and the basic methods for conducting such a study are well understood. One published work (Simmons, 1992) listed 228 such studies which have been performed since the mid 1960's including studies from Shippensburg University, Harrisburg Area Community College, Juniata College, Lycoming College, Washington and Jefferson College, and the Commonwealth of Pennsylvania. Some economic impact studies of colleges and universities are undertaken by state-funded institutions in order to influence funding decisions. Others seem to be of interest primarily to the researchers themselves and have relatively minor policy implications.

The motivation for this study of the economic impact of Dickinson College contains both political and personal elements, but since Dickinson is a private college, the political basis for the study is limited in scope and significance. Some members of the faculty and administration of the college feel that the college's role in the community is underappreciated by some Carlisle residents, and that more information about how Dickinson College affects Carlisle might help to strengthen college-borough relations. We, on the other hand, find the politics of the issue far less interesting than the basic question itself: What is Dickinson's impact on Carlisle and Cumberland County? Providing an answer to this and related questions has proven challenging and interesting.

The process by which this study was completed is quite unusual in that it combines elements of undergraduate as well as institutional and professorial research. This project started as a class project in a course entitled *The Economic Analysis of Policy* in the spring of

2002. At that time spending surveys were sent via e-mail and in some cases ground mail to all Dickinson College students and employees. The students in the class were assigned research topics as individuals or small groups. These topics included the impact of student spending, employee spending, visitors to the college, college purchases, the college's impact on local government, and the social and cultural impact of the college. Others analyzed

**Some Members of the Economic Analysis of Policy Class**

the impact of Dickinson's summer school, and the Center for Talented Youth or Central Pennsylvania Youth Ballet summer programs. The economic impact of the Washington Redskins' training camp was also assigned. All of the summer programs were originally analyzed based on partial data from the summer of 2001, and were ultimately rewritten based on more detailed information during the summer of 2002. While in most cases these class papers did not reach professional standards, the students' work established the basis for the final project, and their contributions are noted on a chapter by chapter basis.

The project was completed during the summer of 2002 with the help of a Dana Summer Research grant to Danielle McCann, who was also a member of the original class, and a grant from the administration. The summer project included spending surveys for admissions visitors, summer school students, students in the CTY and CPYB summer

programs, and surveys of the Washington Redskins' fans, staff, media representatives, and local businesses regarding the impact of the Redskins training camp. Earlier information was re-analyzed and edited into its final form. Finally, the multiplier effects of college-related spending were calculated to produce the final economic impact figures for the Carlisle area and Cumberland County.

The overall results of the study are that Dickinson College contributes approximately 59 million dollars to the Carlisle area economy and over 103 million dollars to the economy of Cumberland County. The relatively low ratio of local to county impact (57 percent) is caused primarily by the limited retail sector in Carlisle at the time of the study. Most notably, over half of the consumption spending of Dickinson employees takes place outside of the Carlisle area.

This study updates and improves upon an economic impact study conducted by William Bellinger in 1995. The 1995 study found that Dickinson College's impact totaled approximately 33 million dollars in the Carlisle area and 48 million dollars in Cumberland County as a whole. These estimates are not comparable to the 2002 results because the earlier study did not include the various summer programs, which accounted for approximately 20 percent of the current impact of the college. Also, the reported spending by employees in 1995 represented a far lower fraction of employee income than was reported this year. Since this year's reported spending remains below national percentages, the current study is more accurate in this regard. Overall, the current effort is far more detailed, sophisticated, and complete than the earlier study.

## Chapter II: Theory and Method

The economic impact of any non-profit institution on a local community involves both benefits and costs. The primary dimensions which define an economic impact study involve where and to whom these benefits and costs occur, and the basic definitions of what are and are not considered benefits and costs of the college. The economic impact of any college or university institution is comprised of three general components: (1) employment and other income from the institution itself, (2) income provided through the spending of the college, its employees, and its students, and (3) multiplier effect of this local spending. The multiplier effect occurs because those who receive income from the college's spending in turn spend some of that income in the area. This indirect spending becomes additional income for the local economy, and also leads to further spending. These rounds of added spending and income continue at a declining rate, and can be roughly quantified based on macroeconomic theory and models of the local economy.

Another issue which is important in defining the nature of an economic impact study is the basic definition of benefit and cost. Economists generally define relevant benefits and costs using the concept of opportunity cost, or the cost of foregone alternatives. The opportunity cost concept is based on the principle that the impact of the college is found by comparing current revenues and expenditures to those which would occur if the college did not exist. One important example of this concept is the method by which foregone tax revenue from the College's tax exempt property is estimated. The concept of opportunity cost suggests that this cost should be based on the average value of Carlisle property, rather than the actual appraised value of college buildings, because if the college did not exist the buildings would not exist in their present form. Because different studies take widely

differing approaches to this issue, alternative estimates of foregone tax revenue will be provided in this study.

The geographic area which is analyzed in an economic impact study varies with the purpose of the study and the size of the college or university. Some studies measure statewide benefits and costs in order to provide relevant information for state funding decisions (Pennsylvania Economy League, Bluestone). Others are local in scope, measuring the impact of a college on its local community (Miklausen, Sann, Simmons). This study is of the latter type, with the analysis limited primarily to the Borough of Carlisle and Cumberland County.

The analytical framework for the study is relatively straightforward. In essence, the economic impact of the college, like that most of Carlisle's large manufacturing, military, and educational institutions, arises by exporting goods and services to other parts of the nation and the world. Dickinson is an exporter of educational services. Approximately 2 percent of Dickinson's students are from Carlisle, and about 1 percent are from other communities in Cumberland County. Since this percentage is very low, and since in the absence of the college most local students would be attending school elsewhere, it is reasonable to suggest that all local college-related spending represents a net increase in local income. Similarly, with the exception of the college's local property, most of its assets and non-tuition income arise from non-local sources. Because of these two factors, nearly all of the revenue flowing to the college comes from outside of the Carlisle area. This makes Dickinson a significant source of funds for the Carlisle area. Of course, the same could be said about Carlisle Barracks, Carlisle Syntech, the Dickinson School of Law, the national trucking concerns with terminals in t[illegible] Carlisle area, and others.

Once one knows the percentage of revenue or employment which is based on exported educational services, the direct and indirect income and employment effects of the college can be calculated. Calculating the direct impact of Dickinson on the income of Carlisle requires an estimate of the percentage of the college's payroll and other expenditures which flow to Carlisle residents and firms. This estimate will be based on information gathered from surveys of Dickinson employees, students, participants in various summer programs, and direct information regarding college payroll and purchases.

In addition to the direct effects of the College on the local economy, there are indirect or "multiplier" effects which should not be ignored. In simple terms, every dollar spent locally by a college employee or student becomes a dollar of income for a Carlisle business or resident. This resident in turn will spend some of that dollar locally, providing additional income for another resident, etc. This cycle of income and spending repeats many times, and is known as the multiplier effect, a fundamental concept from macroeconomic theory. The specific value of the multiplier used in the study requires care, because the multiplier effect will vary with tax rates, rates of saving, and other factors. The general multiplier formula is:

*Income = initial spending [1/ (1-marginal propensity to spend locally)]*.[1]

---

[1] This simple formula is based on an infinite series of declining rounds of added income. The derivation of the formula may be of interest to some readers. Using the letter *m* to represent the marginal propensity to consume locally, Y to represent income, C to represent the initial round of spending by the College community, and numbers to represent the rounds of added income and spending the infinite stream of added income produced by an initial round of spending will appear as follows:

(1) $\Delta Y = \Delta C + m\,\Delta C + m^2\,\Delta C + m^3\,\Delta C + \ldots + m^{\infty}\Delta C$.

Multiplying this equation by the marginal propensity to consume (m) produces

(2) $m\,\Delta Y = m\,\Delta C + m^2\,\Delta C + m^3\,\Delta C + m^4\,\Delta C + \ldots + m^{\infty}\Delta C$.

Subtracting (2) from (1) leads to the following simplification, where most items cancel;

(3) $(1-m)\,\Delta Y = \Delta C$.

Dividing both sides by 1-m produces the final formula,

(4) $\Delta Y = \Delta C\,[1/(1-m)]$.

The marginal propensity to spend locally ($MPC_L$) equals the change in local spending divided by the change in income. The initial spending base for the multiplier is generally assumed to be the direct spending figure.

Our multiplier values are based on the RIMS-II regional input-output model of Cumberland County produced by the Bureau of Economic Analysis of the U.S. Department of Commerce.[2] This model provides a series of income and employment multipliers for 490 detailed industries at the county or other regional level, including a set of multiplier estimates for higher education.[3] For Cumberland County, the RIMS-II model estimates a value for the spending multiplier for higher education of 1.6961, meaning that every dollar spent by the college will produce a total increase of about 1.7 dollars in county income. Similarly, each million dollars spent on higher education is estimated to produce a total of 18.9928 jobs, and each job provided by the College is estimated to lead to a total of 1.4043 jobs for the county as a whole. In all cases the county figure would include the original spending or employment plus the secondary spending or employment created by the multiplier effect.

While the total impact of Dickinson College on the local economy is of great importance, further information can be gathered as to the distribution of these benefits and costs among various segments of the community. The distribution of benefits and costs is often considered by providing separate estimates for the college's impact on local business,

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[2]For a basic description of the RIMS-II model, see Bureau of Economic Analysis, U.S. Department of Commerce "Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II), Third Edition, (Washington: U.S. Government Printing Office, 1997).

[3] The Bureau of Economic Analysis describes the process for calculating multiplier values as follows:

> "The RIMS II model and its multipliers are prepared in three major steps. First, an adjusted national industry-by-industry direct requirements table is prepared. Second, the adjusted national table is used to prepare a regional industry-by-industry direct requirements table Third, a regional industry-by-industry total requirements table is prepared, and the multipliers are derived from this table. (Bureau of Economic Analysis, "Data Sources and Methods" (Washington: RIMS II Help File (Compact Disk)).

local government, local individuals, and on the community as a whole (Caffrey and Isaacs). This study organizes its analysis somewhat differently, however. The division of benefits into business and individual income is clearly misleading, in that all business income goes to individuals as well, and the large majority of after-tax business income goes to labor. Therefore we will estimate values for income derived from college employment, income derived from the direct spending of the college and its employees, students, summer program participants, and visitors, and income derived from the multiplier effect of this direct spending. Finally we provide a summary of the College community's cultural and charitable contributions to the Carlisle area, and estimate an implicit value for the College community's donations of facilities and volunteer labor to the area.

We will also provide a separate analysis of the College's impact on local government, including the Borough of Carlisle, the Carlisle Area School District, and the government of Cumberland County. The impact of the college on local government includes lost tax revenue on those college properties used for educational purposes, which by law are tax exempt. Other costs include the added provision of local services, such as education, to Dickinson employees and their families. These costs must be balanced against the positive impact of Dickinson's employment on local tax revenue, property taxes paid on Dickinson's taxable properties, the college's payments to the borough in lieu of taxes, and other contributions to the borough and the school district.

Overall, it is not unreasonable to find that while most parties benefit substantially from the presence of a college, some others may lose. While I doubt that any college or university economic impact study finds a negative economic impact for the community as a whole, local government is sometimes found to suffer minor net losses due to the tax-exempt status of educational institutions. According to our findings using our preferred method, only

the Cumberland County government suffers a net loss due to the existence and tax status of Dickinson College.

The following sections of this report will present our findings for the income and operating expenses of Dickinson College itself, and also the direct spending of College employees, students, summer educational programs, visitors to the College, and the Washington Redskins Training Camp. The college's social and cultural impact will be described as well. The total direct spending figure will then be combined with the multiplier values discussed above to calculate the total economic impact of the College on Cumberland County and the Carlisle area.

# Chapter III: The Impact of Dickinson Employee Spending*

The most significant component of Dickinson's contribution to the local economy comes from employee spending. Because the majority of employees live in the borough and surrounding townships and often maintain a household, their total spending tends to be much higher on average than that of non-resident students or visitors to campus. In this chapter we analyze the results of a survey of Dickinson employees and estimate the added income created in the Carlisle area and in Cumberland County directly from the spending of Dickinson employees. This analysis begins with a description of the employee spending survey and the sample of employees responding to it. We then describe the employment, income, savings, spending, and tax payments of employees and members of their households.

***The Survey Sample***

A spending survey was distributed to the 766 employees at Dickinson College during the spring of 2002 via e-mail and regular post. This survey is provided in Appendix I. General information was gathered regarding residence, family size, number of children, family income and employment, spending, savings, and charitable and cultural activities. Responses were received from 174 employees, or 23 percent of the total. This percentage is somewhat low, and required us to utilize additional information regarding total employment, residence, and total income for all employees provided by various offices in the administration. However, the sample we compiled is quite similar to the total employees of the college in terms of job classification, so the average income and spending figures are unlikely to be biased upward by an overly professional sample of employees. Our general approach is to utilize the survey results to estimate average spending, income, and

* Other students contributing to this chapter were Meredith Brown, Erin Cowling, and James Toth.

employment patterns, and utilize other information when necessary to calculate estimates of total spending and other information for all Dickinson employees.

This chapter will proceed in three steps. The first section will describe the various characteristics of our survey respondents, and compare them when possible to the population of college employees to check for biases in our sample. We will then review the respondents' spending patterns and complete the chapter with an estimate of the total spending by college employees in the Carlisle area and Cumberland County.

***Employee Characteristics***

Residence is one important dimension of our sample which is somewhat biased relative to the employee population. Of the 174 employees that responded to the survey 74, or 42 percent, reside in the Borough of Carlisle, 70 reside in neighboring townships, and 30 reside in other areas outside the immediate area (Figure III-1). The Human Resources Department reports that the actual percentage of employees residing in the borough is 61 percent, indicating that borough residents are somewhat underrepresented in our survey. As far as surrounding locations are concerned, relatively large concentrations of employees live in North Dickinson Township, North Middleton Township, South Middleton Township, and West Pennsboro Township. Household sizes and number of school age children varied among the employees (see Figure III-1 and Table III-1).

**Figure III-1:**

**Employee Residency from Surveys**

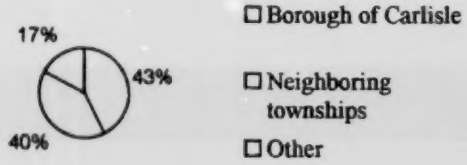


**Table III-1: Employee Household Information**

| NUMBER IN HOUSEHOLD | RESPONSES | TOTAL HOUSEHOLD MEMBERS | SCHOOL AGE CHILDREN PER HOUSEHOLD | RESPONSES | CHILDREN IN CATEGORY |
|---|---|---|---|---|---|
| 1 | 42 | 42 | 1 | 26 | 26 |
| 2 | 57 | 114 | 2 | 17 | 34 |
| 3 | 27 | 81 | 3 | 6 | 18 |
| 4 | 29 | 116 | **Total** | **49** | **78** |
| 5 | 16 | 80 | | | |
| 6 | 1 | 6 | | | |
| **Total** | **172** | **439** | | | |

In addition to the 61 percent of all college employees live in the borough, we will estimate the percentages who reside in neighboring townships, elsewhere in Cumberland County, and outside of the county. We know that 39 percent of Dickinson employees live outside the borough. In our sample, 100 respondents are non-residents of the borough. Of this group, 70 percent live in surrounding townships, 12 percent live elsewhere in Cumberland County, and 18 percent live in other counties, primarily the surrounding counties of Dauphin, York, Perry, Franklin, and Adams. Applying these proportions to the actual 39 percent figure for non-borough residents implies that 27 percent (.7 x 39 percent) of all employees live in surrounding townships, 4.7 percent (.12 x 39 percent) live elsewhere in Cumberland County, and 7 percent (.18 x 39 percent) live in other counties. These figures will be used to estimate the geographical distribution of Dickinson payroll expenditures in a later chapter.

***Family Employment, Income, and Savings***

An employee's occupational category is also an important factor when analyzing employee contributions to the Carlisle community. In our analysis employees are grouped into four job categories based on the information provided by the Human Resource Services department at Dickinson. These categories are administrator, faculty, academic professional, and support staff. The support staff consists of the office staff, buildings and grounds

employees, food service employees, and a few uncategorized employees. Also, based on the data received from employee accounts we found that 776 people are employed by the college, including 634 full-time workers and 142 part-time workers. The distributions of total employees and survey respondents by employment category are presented below.

**Table III-2: Dickinson Employment by Category**

| EMPLOYMENT CATEGORY | EMPLOYEES IN SAMPLE (% OF TOTAL SAMPLE) | TOTAL EMPLOYEES (% OF TOTAL) |
|---|---|---|
| Faculty | 49 (28%) | 234 (30%) |
| Administrator | 50 (29%) | 171 (22%) |
| Academic professional | 11(6%) | 28 (4%) |
| Support staff | 64 (37%) | 343 (44%) |
| total | 174 (100%) | 776 (100%) |

While administrators are slightly over-represented and support staff somewhat under-represented, our sample is quite representative of the employment profile of the college as a whole. This finding permits us to use total income and spending figures without calculating separate estimates for each employment category.

Family income is one of the most important monetary aspects of this study because it determines how much money will be spent in the Carlisle area and Cumberland County. Higher incomes also result in higher tax payments to local governments. Because other family members also work in the area, both the employment and income figures for employees' families will be larger than those of the college alone.

The first step in this analysis is to review the employment income of college employees. This information was provided by the Human Resource Services office and the

**Table III-3: College Employment and Income**

| Job Category | Full Time Employees | Part Time Employees | Total Salary |
|---|---|---|---|
| Faculty and<br>Acad. Professional | 172<br>26 | 62<br>2 | $11,200,000*<br>(includes both) |
| Administrator | 162 | 9 | 7,600,000 |
| Support staff | 274 | 69 | 6,900,000 |
| Total Salaries* | 634 | 142 | $25,700,000 |

*This total includes wages and salaries, but not the cost of benefits.

Treasurer's Office. In addition to employees, other members of employees' households are also likely to hold full and/or part time jobs. Based on the 174 survey responses, other members of employee's households hold 102 full time jobs, of which 83 are in the Carlisle area, 15 elsewhere in Cumberland County, and 4 outside of Cumberland County. Respondents also reported 84 part time jobs in Carlisle, 9 elsewhere in the County and 9 outside of the County for a total of 102.

Family income figures include employee income and other employment income from employee's families. Figure 4 shows the average reported family income before taxes for each job category. Faculty have the highest average family income with $86,590, and support staff have the lowest with $47,949. Average family income after taxes, along with estimated total family income after taxes per job category, can be found in figures III-2 and III-3.

**Figure III-2:**
**Average Family Income Before Taxes**

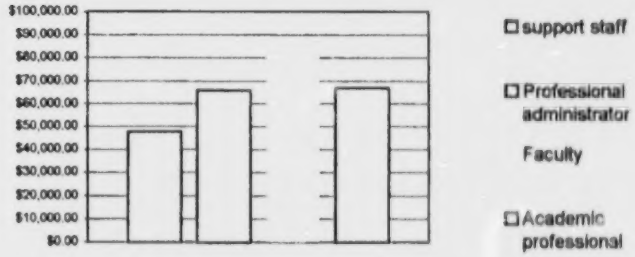



**Figure III-3:**
**Average Family Income After Taxes**

Average family income for the entire sample is $67,569 before taxes and $50,788 after taxes. Given that this after-tax figure is 75 percent of the pre-tax figure, which is higher than the national average for disposable income, we will assume that respondents generally did not deduct local taxes when arriving at their responses.

Due to our expectation that spending would be underreported in the survey, we collected information on annual savings in order to have a second means of estimating total consumption spending by employees. In macroeconomic terms, savings and financial investments represent all income that isn't spent. When one subtracts savings from after-tax income, one gets a measure of consumption spending which is likely to be more accurate than reported budget figures from the survey. For our sample, the average reported annual savings was $9,637. This annual savings figure varied only modestly across job categories from $11,341 for faculty households to $7,681 for support staff. Subtracting the average savings figure from average after-tax income produces a figure of $41,151. As noted above, it is probably necessary to further deduct local taxes. Averages for the three major local taxes are $2,262 for the property tax, $675 for the earned income tax, and $455 for the occupation tax, for a total of $3,392. Therefore our indirect estimate of annual consumption spending per household equals $37,759. It will be of interest to compare this figure to employees' reported spending.

***Reported Employee Spending***

Consumer spending by Dickinson employees and their families is the most important component of the economic impact of the College. This spending directly produces revenue for local and county businesses. According to our survey results, the average employee budget averages approximately $1,400 per month, or $17,000 per year, for the reported items. This spending is broken down into seven categories: Food and drink, clothing,

entertainment, auto expenses, local religious contributions, health and education, and other. These categories are further analyzed for the Borough of Carlisle and for all of Cumberland County.

**TABLE III-4: MONTHLY EMPLOYEE SPENDING ON CONSUMER GOODS**

| | Other Cumberland County | | | Carlisle Area | | |
|---|---|---|---|---|---|---|
| Spending Category (number of responses) | Total Monthly Spending, Sample | Average Spending | Estimated Total | Total Monthly Spending, Sample | Average Spending | Estimated Total |
| Food, Drink (154) | $39,358 | $256 | $198,656 | $39,966 | $256 | $198,656 |
| Clothing (154) | $10,584 | $69 | $53,544 | $4,785 | $31 | $24,056 |
| Entertainment (153) | $4,988 | $33 | $25,608 | $3,899 | $26 | $20,176 |
| Auto Expenses (153) | $17,833 | $117 | $90,792 | $20,632 | $134 | $103,984 |
| Religious (153) | $6,026 | $39 | $30,264 | $4,700 | $31 | $24,056 |
| Health, Education(153) | $6,451 | $42 | $32,592 | $5,475 | $36 | $27,936 |
| Other (152) | $27,818 | $183 | $142,008 | $22,169 | $146 | $113,296 |
| Total Budget* | $113,058 | $744 | $577,344 | $101,626 | $669 | $519,144 |
| | **Estimated Yearly Total | | $6,928,128 | Estimated Yearly Total | | $6,229,728 |

*The total budget figures are the sums of the categories
**The estimated annual totals equal the monthly average x 776 employees x 12 months.

Overall, the average monthly budget reported for all of Cumberland County produces an annual spending estimate of $16,956 per household, which is about 45 percent of the average household income after taxes. As discussed later, housing expenses were reported separately in the survey. Therefore we can assume with some confidence that housing expenses are not included in this budget figure. Given this interpretation, the nearly $17,000 per household is a more reasonable figure for average spending than we found in the 1995 study.

***Housing Related Expenses***

Housing expenses are large proportion of most employees' budgets. The local impact of housing spending varies somewhat between renters and homeowners, and also by the location of homeowners' primary mortgage lenders. Assuming that all landlords live in the Borough of Carlisle and surrounding areas, rent payments will contribute fully to local economic activity. The local economic impact of mortgage payments depends more on the location of the lender. According to our survey, about two thirds of Dickinson employees

own their homes (69%) while 31% rent. Among owners, 82 percent live in the borough or surrounding townships while 88 percent live in Cumberland County. Among renters a very similar 83 percent live in the borough or surrounding townships and 90 percent in Cumberland County.

Rental payments for Dickinson employees are relatively high for the area, as would be expected among a largely professional group of employees. The amount of rent ranged from $350 to $1,050, with an average rent of $556.55. Based on the sample, the total amount of rent paid per month for all college employees comes to 776 x .31 x $556.55, or $133,884. This number was found by multiplying the total number of employees (776) by thirty-one percent, which is the percentage employees who rent. The annual rental payments would therefore equal $133,884 x 12, or $1,606,604.

Those employees who own their homes make mortgage payments to a wide range of financial institutions. Of the 67 respondents who answered this question, 29 reported having mortgages from institutions with branches in Carlisle and Cumberland County. One, or 1.5 percent, had paid off the mortgage. The other 38 had mortgages with national institutions with a relatively small or non-existent presence in the county. Of the institutions with a county presence, the percentage of total branch offices located in the county ranged from a majority in the case of Members 1st to 1 of 1,400 total mortgage offices for Wells Fargo.

Gauging the impact of mortgage payments on the local economy, even without considering the usual sale of mortgage debt to other parties, is at best a patchwork of guesses. Assuming (inaccurately, we suspect) that all branches are of equal size; we can calculate the fraction of branches located in the county and use that as the basis for our impact estimate for mortgage payments. We multiplied each company's fraction of branches within the county times the number of Dickinson employees holding mortgages with that company, added the

results and divided by the total respondents to the question. On that basis we estimated that 11.4 percent of the mortgage payments represent county income, and 2.2 percent represent borough income. The average mortgage payment was reported to be $909.28 per month, or $10,911 per year. Of this annual total an estimated average of $1,244 contributes to income in Cumberland County, and $240 stays in Carlisle.

Totals can again be found by multiplying these average payments by the number of employees with mortgage debt. Based on the survey, 69 percent of employees, or 535, own homes. Of this group an estimated 1.5 percent, or 8, have paid off their mortgages. Multiplying these average payments by the estimated 527 employees who make mortgage payments, we estimate a total impact of 527 x $1,244, or $655,588, in added income for the county, and 527 x $240, or $126,480, in added income for the Carlisle Borough.

The other major expenses related to one's residence are the payments for various utilities. According to our survey results, average total utility payments equal $177 per month for renters and $259 for homeowners. The annual averages would therefore be $2,124 for renters and $3,108 for owners. For all renters, total annual utility payments equal $177 per month x 12 months x 241 renters, or $511,884. For all homeowners, utility payments total $259 x 12 x 535, or $1,662,780.

Estimating the local and countywide impact of these expenditures is far more difficult than for mortgages because of the number of different services involved. Unlike mortgage payments, some utilities offer either a locally or regionally owned service, or a service owned elsewhere but supported by local employees. For electricity, approximately 48 percent of the electric bill is for delivery charges, which are in some respects local, while 52 percent are for generation, which takes place outside the county. We will therefore assume that 48 percent of electricity payments contribute to the county economy. For internet service, 42 of 100

reporting their internet company used local internet service providers, while 58 used national providers. The largest number of users subscribed to AOL (30) and PA.net (25). The few DSL or cable modem users are counted as local also because of the large local offices for Sprint and Comcast. Overall, we estimate that 42 percent of total internet spending flows to the local economy. Given these estimates, it is reasonable to assume that approximately 45 percent of total utility spending contributes to the county economy, and a least half of that total stays in the Carlisle area. Therefore the utility spending of Dickinson employees contributes a total of $81,147 to the county economy and $40,574 to Carlisle's economy.

***Total Direct Spending***

The total direct spending by Dickinson employees can now be estimated. Based on the survey results, the average employee spends $16,956 on food, clothing, transportation, entertainment, and other categories, plus an average of $12,226 per year on housing and utilities, for an average total spending figure of $29,182. This reported spending equals 77 percent of the average $37,759 in after-tax family income. While significantly lower than the roughly 95 percent of disposable income which is spent nationally, it represents a more complete accounting of spending than we expected, and therefore is likely to provide reasonably accurate figures regarding the distribution of spending across locations and types of purchases. It also represents a reasonable, though conservative, basis for estimating the direct impact of employee spending on the local economy.

The total direct contribution of Dickinson employees to the Borough and to the County depends on the proportion of the total spending that flows to local sources. The results are summarized in Table III-5. We estimate that employees contribute approximately fifteen million dollars to the county's economy and $7.7 million, or about half of the

**Table III-5: Total Direct Spending by Dickinson Employees**

| INCOME SOURCE | COUNTY SPENDING | CARLISLE SPENDING |
|---|---|---|
| Consumption | $13,157,856 | $6,229,728 |
| Housing | $2,101,532 | $1,455,018 |
| Utilities | $81,147 | $40,574 |
| Total | $15,350,535 | $7,725,320 |

county total, to the Borough. These figures represent only the direct spending of employees, and do not include the indirect or multiplier effects of this spending. That component will be calculated after the full range of direct impacts has been discussed.

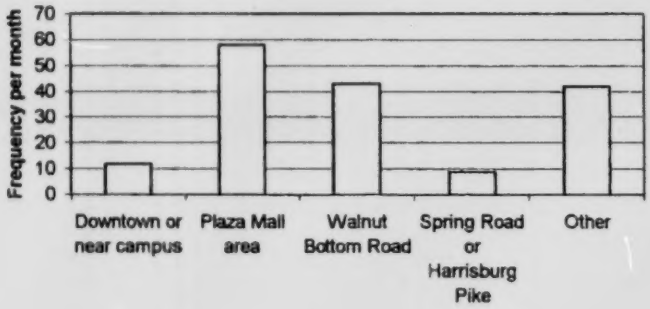
***Distribution of Spending***

While the total spending figures for employees are probably somewhat underreported, the distribution of spending offers some important findings. Particularly noteworthy is the relatively low percentage of spending that takes place in the Carlisle area. According to our survey results, total monthly consumer spending averages $1,413 for the county as a whole. Of this total $669, or 47 percent, takes place in the Carlisle area. Only auto related spending is higher in the Carlisle than in the rest of the county. This pattern stands in contrast to our finding in the 1995 study of Dickinson's economic impact (Bellinger, 1995), which found that 74.5 percent of employee spending took place in the Carlisle area. This change is not due to any major change in residence patterns, since in 1995 48 percent of respondents lived in the Borough and an additional 31 percent lived in surrounding townships, a slightly smaller proportion of local to total residence than among this year's survey respondents. The likely reason for the large reduction in local spending is the significant shrinkage of local retail outlets due to the demise of the MJ Mall and the partial emptying of the Plaza Mall since 1995. The new Wal-Mart based shopping plaza at the location of the old MJ Mall was under construction at the time of this study, and may have some potential to reverse this

negative trend in local retail spending. In the meantime Dickinson's local economic impact is limited by the lack of retail options in the Carlisle Borough.

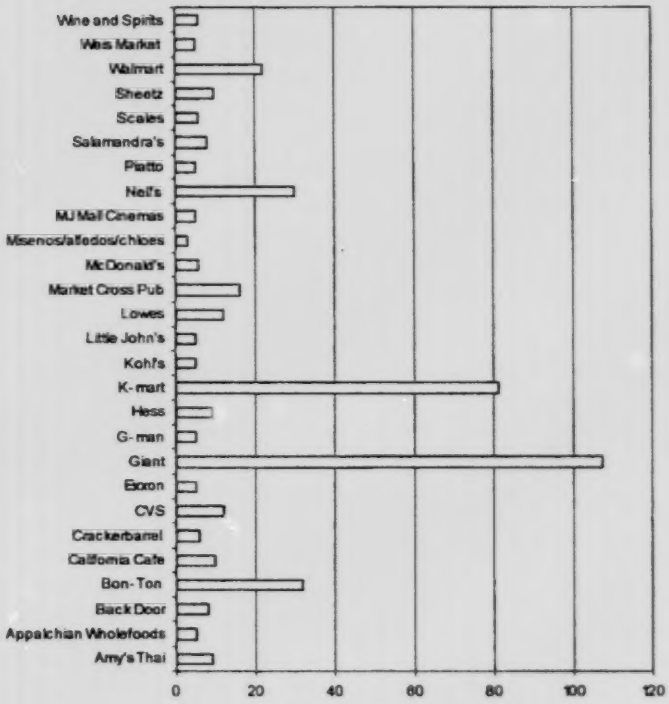
The distribution of spending can also be described in more specific terms. Employees do the bulk of their local spending in the Plaza Mall and Giant area on the east side of Carlisle or in the Walnut Bottom Road area, which includes a Nell's Market and a K-Mart outlet. On the other hand, relatively little employee spending takes place in the downtown business district. These findings are summarized in Figure III-4.

**Figure III-4: Location of Carlisle Area Spending**




As for specific retail outlets, the total number of visits for the employee sample are reported in figure III-5 below. As expected from the distribution of spending, the most popular retail establishments are the grocery stores.

**Figure III-5: Most Visited Establishments**




As for the distribution of consumer spending by type of purchase, food and automobile operation and maintenance make up the largest components of spending, both locally and elsewhere in the county. Almost fifty percent of this budget for both Carlisle and Cumberland County is spent on food and drink. These percentages are displayed in Figures III-6 and III-7.

**Figure III-6: Estimated Division of Monthly Spending in Cumberland County**

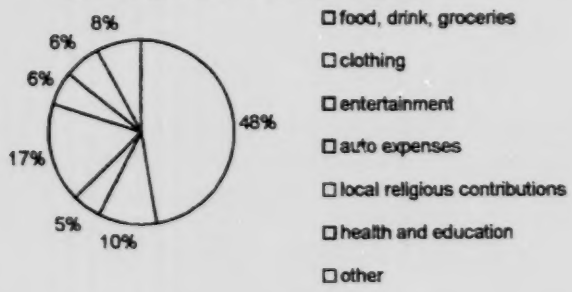







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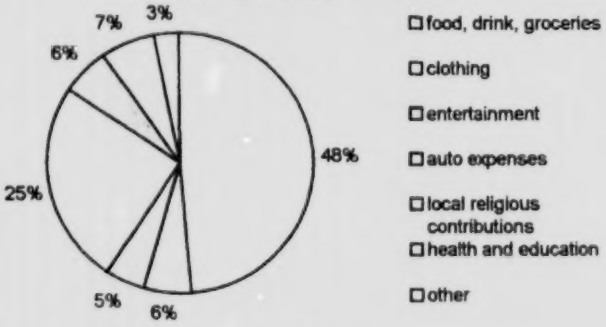
**Figure III-7: Estimated Division of Monthly Spending in Carlisle**




## *Conclusion*

We estimate that employees contribute approximately fifteen million dollars in direct spending to the county's economy and $7.7 million, or about half of the county total, to the Carlisle Borough. This total is based on spending on a range of consumer goods, housing, and utilities. The majority of the consumer spending goes to food and automobile maintenance. Geographically, a slim majority of employee spending in the county takes place outside of the Carlisle area, and in Carlisle most spending takes place on the eastern and southwestern edges of the Carlisle borough, and relatively little employee spending takes place in the downtown business district.

It is important to recognize that salaries of the Dickinson employees have a positive economic impact on the Borough of Carlisle and surrounding townships through consumer spending, taxes, rent, and utilities. Furthermore, non-monetary benefits such as community service must be taken into consideration as an impact. Lastly, without the presence of Dickinson College in the Borough of Carlisle, there is a high possibility that many of the families of the current employees would be living elsewhere and this would result in large

reduction in the amount of revenue coming into the Borough of Carlisle and surrounding townships.

## Sources

Bellinger, William K., *The Economic Impact of Dickinson College on Carlisle, PA, 1995* (unpublished)

# Chapter IV: The Impact of Dickinson Student Spending*

Student spending adds to the local economy both directly by creating income for local businesses and their workers, and also indirectly through the subsequent spending of that local income by business owners and workers. While far lower on average than employee spending, the spending of Dickinson students nonetheless provides a significant net benefit to the local private sector. We also find that the geographical distribution of student spending differs from that of employees, with a larger fraction of that spending taking place in downtown Carlisle or near the campus.

***Survey Sample***

In order to measure student spending patterns we sent a detailed spending survey to all 1,906 local students via e-mail. This survey produced 766 responses, or 40 percent of the entire student population. The largest response came from the freshmen (249), and the smallest number received was from the junior class (139). The sophomores had 229 responses and the seniors provided 148. These numbers are good representations of each class with only the senior class having a response rate of less than 40 percent. The number for the junior class is low because large percentages of juniors study abroad. The male (271) to female ratio (495) of the participants was reasonably similar to that of the school, so as far as gender is concerned the statistics are also representative. The majority of respondents live on campus (648), while others live off campus in Dickinson-owned housing (64) and non-Dickinson housing (53). Table IV-1 summarizes the number and percentage of survey respondents by class, and also provides numbers and percentages by class for the total

* Other students contributing our analysis of student spending were William Hagan, Andy Moult, and Richard Pencek.

student body. Comparing these percentages demonstrates the highly representative nature of our survey sample for students.

**Table IV-1: Student Population by Class**

| STUDENT CATEGORY | STUDENTS IN SAMPLE ( PERCENT OF TOTAL SAMPLE) | TOTAL STUDENTS ( PERCENT OF TOTAL) |
|---|---|---|
| Freshman | 250 (33 percent) | 608 (32 percent) |
| Sophomore | 229 (30 percent) | 525 (28 percent) |
| Junior | 139 (18 percent) | 328 (17 percent) |
| Senior | 148 (19 percent) | 445 (23 percent) |
| Total | 766 (100 percent) | 1,906 (100 percent) |

***Reported Student Spending***

According to our survey, most student spending involves food, beverages, and groceries, followed by automobile expenses, clothing, and entertainment. The average student reports spending $169.50 a month in Carlisle and $223.83 elsewhere in Cumberland County. As with the employees, students spend a greater amount elsewhere in the county than in Carlisle because of the lack of retail stores in the Carlisle area. This reported spending has some biases, however. For example, both the median and mode is $100 spent per month, but the mean is significantly higher because a small portion of students reported spending between $500 and $900 a month. One possible factor in this skewing of the spending figure is off-campus residence. Those living in off-campus Dickinson housing spent 41 percent more per month than on-campus residents, while those living in non-Dickinson housing spent 96 percent more.

Spending can also be broken down by class. To calculate how much a class spends in an academic year, we multiply that class's average spending per month as reported in the survey times the total number of students in that class times the months in an academic year. For example, the sophomore class spends $168.56 per student x 525 students x 8 months in an academic year, for a total of $707,952. The total spending of all Dickinson College

students in Carlisle for the academic year using this method is $2,584,536.00. Similarly students spend an estimated $3,397,771.84 elsewhere in Cumberland County for a total amount of student spending in Cumberland County of $5,982,247.84. These findings are presented in Table IV-2.

**Table IV-2: Student Spending By Class**

| | FRESHMAN | SOPHOMORE | JUNIOR | SENIOR | TOTAL |
|---|---|---|---|---|---|
| **Avg. Spending in Carlisle per Month** | | | | | |
| Food, Drink | $62.44 | $61.01 | **$91.43** | $76.27 | $70.00 |
| Clothing | $32.24 | **$42.30** | $39.07 | $35.32 | $37.19 |
| Entertainment | **$28.24** | $25.23 | $25.63 | $28.00 | $26.93 |
| Auto expenses | $39.21 | **$39.96** | $30.05 | $39.12 | $35.38 |
| Total | $162.13 | $168.56 | **$186.18** | $178.71 | $169.50 |
| **Total Spending in Carlisle per Year** | | | | | |
| | **$788,600** | **$707,952** | **$488,536** | **$636,208** | **$2,584,536** |
| **Avg. Spending Elsewhere in Cumberland County per Month** | | | | | |
| Food, Drink | $73.26 | $66.52 | **$81.62** | $73.23 | $72.86 |
| Clothing | $62.09 | **$89.93** | $59.81 | $54.19 | $67.75 |
| Entertainment | **$38.23** | $29.70 | $37.21 | $30.30 | $34.00 |
| Auto expenses | $44.17 | **$80.75** | $29.60 | $37.17 | $48.22 |
| Total | $217.75 | **$266.90** | $208.24 | $194.89 | $222.83 |
| **Total Spending Elsewhere in Cumberland County per Year** | | | | | |
| | **$1,059,136** | **$1,120,980** | **$546,422** | **$693,808** | **$3,397,772** |
| | | | | | |
| **Overall Cumberland County Spending by Students = $5,982,248** | | | | | |

Results from a previous study suggested that the seniors spent the most money off campus followed by the juniors, sophomores, and freshmen, respectively (Bellinger, 1995). However, this year's spending patterns were somewhat different. This year's survey found that sophomores had the highest average spending, followed by juniors, freshmen, and seniors. One factor which may contribute to this finding is the significant decrease in the fraction of tuition covered by financial aid over the past two years. Due to this trend our younger students are likely to have higher family incomes, and therefore higher personal budgets. The location of spending also varied by class, with juniors and seniors spending the

highest amounts in Carlisle, and sophomores and freshmen spending the most elsewhere in Cumberland County. Local bars and restaurants are the likely beneficiaries of this pattern. Students dine off campus about 7 times per month with juniors eating out the most times per week and seniors the least. This is surprising since the majority of students living off campus are seniors, and many of them do not have meal plans with the school.

Student spending elsewhere in Cumberland County also varied by class. The highest average spent on food and drink outside of Carlisle but within the county was by the junior class, while the lowest was by sophomores. Sophomores spent the most on clothing while seniors spent the least. Sophomores spent the most on autos, nearly tripling the spending of juniors. In total, the class with the largest monthly spending total elsewhere in Cumberland County was the sophomores, while the seniors surprisingly had the smallest.

There are some possible uncertainties and biases in these numbers. Overall, the average spending in all locations equaled $391 per month, a relatively high number. Some of the total spending takes place within the college. For example, when a student spends $50 in the college bookstore where students work, that money has little direct impact on the rest of Carlisle, though part of the student and other employee income is indeed spent locally. On the other hand, we documented that employee spending is both significantly greater overall and is likely to be underreported. Therefore we remain confident that on balance our spending totals are reasonable and reliable.

***Housing Related Expenses***

Unless an exception is granted, Dickinson students are required to live on campus for their entire undergraduate education. Therefore the percentage of students living off-campus is relatively low. According to our survey, about 7 percent of students, or an estimated 150 total, live off-campus in non-Dickinson housing with the majority of these being seniors.

These students must make rent and utilities payments as well as potentially higher payments for food. The average off-campus rent is $356, with utilities costing an additional $100 per person. We can estimate the total monthly rent paid by Dickinson students to be $356 per month x 150 students or $53,400. Total monthly utility payments by off-campus students equal $15,000. If we assume that students are only occupying these residences during the academic year, including January, for a total of 9 months, then the annual contribution by off-campus students for rent and utilities equals ($53,400 + $15,000) x 9, or $615,600. There are offsetting biases associated with the rental numbers. These numbers may include a few local Carlisle residents who live with parents and are commuters. This would create an overestimate. However, some students may be occupying residences during the summer months, subletting, or paying for 12 month leases while absent. No estimates are included for this possible spending. Finally, some of the 150 students may be living together and sharing these rent and utility expenses, but reporting total rent as their own.

***Distribution of Local Spending***

The three establishments that students visit most often are, in descending order, Giant, K-Mart, and The Gingerbread Man. The students were asked where in the Carlisle area they most often visited when spending money. The results are summarized in Table IV-3. This table indicates that local student spending is far more concentrated near

**Table IV-3: Most Common Student Spending Locations**

| LOCATION | FRESHMEN | SOPHOMORES | JUNIORS | SENIORS | TOTAL |
|---|---|---|---|---|---|
| Downtown/ Near campus | 173 | 97 | 64 | 74 | 408 |
| Plaza Mall/ Giant | 17 | 57 | 29 | 42 | 145 |
| Walnut Bottom | 31 | 36 | 27 | 9 | 103 |
| Other | 22 | 33 | 19 | 18 | 92 |
| Total | 243 | 223 | 139 | 143 | 748 |

campus or in downtown Carlisle than is true for employees, for whom downtown was the least common shopping area. There is also a clear locational pattern by class rank.

According to our survey, 71 percent of freshmen listed near campus or downtown as their most common spending location versus 43 percent of sophomores, 46 percent of juniors, and 52 percent of seniors. Since freshmen are not allowed to have cars on campus, this result is to be expected. According to Safety and Security, 1,175 student parking permits were issued during the 2001-02 school year, indicating that a substantial majority of upperclassmen have automobiles in the area. Therefore their greater mobility significantly affects their spending patterns.

***Conclusion***

Overall, we estimate that Dickinson students spend an annual total of $3,200,136 in Carlisle, including rent and utilities, and $6,597,848 in all of Cumberland County. While these figures are less than half the total spending of employees, the totals nonetheless represent millions of additional dollars for the local economy. Furthermore, students are a particularly important source of business for downtown Carlisle, a result that much of the Carlisle community may not realize. As with other categories of direct spending, student spending creates the basis for additional rounds of spending by the owners, workers, and suppliers contributing to local businesses.

# Chapter V: Dickinson College Payroll and Purchases*

This chapter discusses two relatively straightforward components of Dickinson College's economic impact. The first is the college payroll, which represents added income for those employed by the college. The second is Dickinson College's purchases of goods and services related to the operation of the college.

***College Payroll***

As noted in Chapter III, 61 percent of college employees live in the borough. We also estimated that 27 percent live in surrounding townships, 4.7 percent live elsewhere in Cumberland County, and 7 percent live in other counties. The administration reported that the total compensation budget for the College for the 2002 fiscal year was 36.2 million. Subtracting the $1.5 million in student wages, which go overwhelmingly to non-residents of the county, leaves a total of $34.7 million dollars. Assuming that this income is distributed geographically in the same proportions as college employees, $21.167 million represents added income for the borough, $11 million goes to other residents of Cumberland County including those living in surrounding townships, and $2.43 million goes to non-residents. Overall, income from Dickinson College employment adds $21,167,000 to total income in the borough and $32,166,000 to all residents of Cumberland County.

***College Purchases***

In addition to Dickinson College's employment and payroll expenses, the college also incurs a variety of operating costs within Cumberland County, some of which may not typically be associated with academic activity. Besides the obvious expenses of office supplies and related administrative expenditures, the college also contracts for painting, small construction projects, and specialized electrical, plumbing, or other services. The college

* Justin Elick also contributed to our analysis of the impact of college purchases.

also purchases significant amounts of machinery, computer hardware and software, and lawn and garden supplies from local vendors. The college also purchases legal, transportation, and lodging services which have direct economic effects on the city of Carlisle and Cumberland County.

In response to our request for information, a group of technical and financial administrators compiled data for all college purchases by departments and by the central administration for the 2001-2002 fiscal year. Results were provided geographically by zip code. These records show that Dickinson purchased a total of $16,275,941.08 in equipment, supplies, and contracted services for the 2001 fiscal year. Of those payments, 78 percent, or $12,676,291.04, was spent in Cumberland County and 60 percent, or 9,738,635.83, was spent in the Carlisle zip code. Table XI-1 presents the distribution of college purchases geographically, categorized by the twelve Cumberland County zip codes.

**Table V-1: College Purchases by Zip Code**

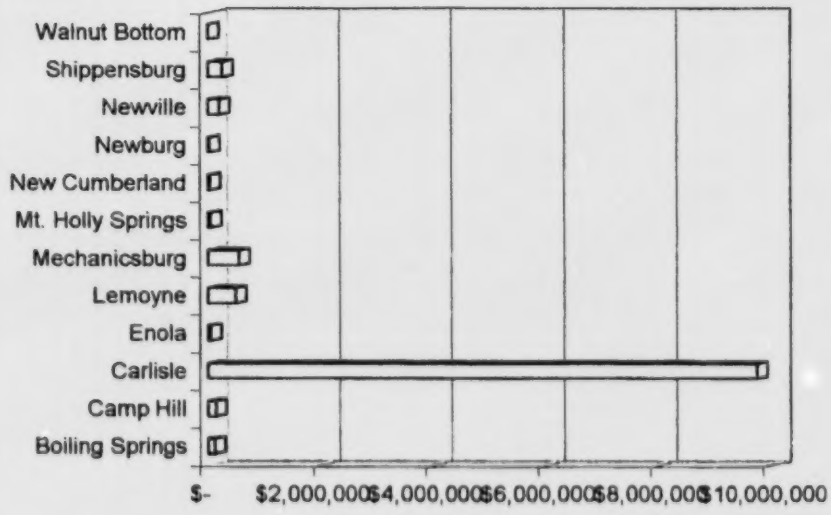
| ZIP CODE | AREA | COLLEGE PURCHASES |
|---|---|---|
| 17007 | Boiling Springs | $110,803.91 |
| 17011 | Camp Hill | $127,452.48 |
| 17013 | Carlisle | $9,738,635.83 |
| 17025 | Enola | $40,276.71 |
| 17043 | Lemoyne | $483,803.07 |
| 17055 | Mechanicsburg | $547,204.71 |
| 17065 | Mt. Holly Springs | $40,600.22 |
| 17070 | New Cumberland | $26,815.46 |
| 17240 | Newburg | $13,003.61 |
| 17241 | Newville | $188,208.37 |
| 17257 | Shippensburg | $244,965.27 |
| 17266 | Walnut Bottom | $459.09 |
| Total | Cumberland County | $12,676,291.04 |

The college's accounting office estimates that the college purchases were predominately for business supplies, food, and utilities. However small incidental expenses made up a considerable proportion of the payments. The College's purchasing director, Michael Helm, indicated via a phone interview that spending was relatively constant

throughout the year. He also indicated that the figures listed for college purchases were conservative estimates because some spending was not included in this expense report. For example, there are many purchases by Dickinson on a local level with college-owned credit cards which are included in payments to MBNA bank in Delaware. There are also cash sales that may be reimbursed through vouchers at the Cashier's office.

The zip code 17013, representing the Carlisle area, understandably leads the geographical division of college purchases with 77 percent of the total purchases occurring in Cumberland County and 60 percent of all college purchases. There are also relatively large direct economic effects on the nearby towns of Dillsburg in northern York County and on Mechanicsburg and Lemoyne in Cumberland County. These three towns received purchasing totals of more than $500,000 in the 2001-2002 fiscal year. The bar graph below (Figure V-1) will better illustrate the variable economic influence Dickinson College has on the city of Carlisle and other locations in the County.

**Figure V-1: College Purchases by Location**




While all values other than Carlisle's seem quite small, the Lemoyne and Mechanicsburg figures each represent over $500 thousand dollars in direct purchases.

## Conclusion

To summarize, this chapter analyzed two related contributions to the local economy arising from college purchases. The first was income earned by college employees. We estimate that Dickinson College employment adds $21,167,000 to total income in the borough and $32,166,000 to total income in Cumberland County.

The other category of college spending analyzed in this chapter is the purchase of goods and services, which directly creates income for local businesses and their employees.

We estimate that the purchases of supplies, equipment and contracted services by the central administration and departments of Dickinson College contribute over $12 million in direct spending to Cumberland County and over $9 million to the Carlisle borough. These figures are quite comparable to the effect of employee spending, which we estimated to be somewhat over $15 million for the County and almost $8 million for the Carlisle area. Since College purchases are more concentrated in Carlisle, however, their local impact is proportionately greater.

# Chapter VI: Impact of Visitors to Dickinson College*

In this chapter we estimate the direct spending of two groups of visitors to the College; prospective students and their families, and those visiting current students during the academic year. Visitors add income to the community through added spending on lodging, meals, and general expenditures. We find in this study that the effect of visitors to Dickinson College on the borough of Carlisle and Cumberland County is relatively modest. Overall, the total direct spending by admissions visitors and the lodging expenditures of those who visit Dickinson students totals an estimated $865,180. We will begin by analyzing the spending of admissions visitors, then analyze the spending of those visiting current students. Visitors associated with various summer programs will be analyzed separately.

## Admissions Visitors

One source of visitors to the Dickinson College is the admissions office. Prospective students commonly visit the campus at least once with other members of their family, and generally spend some money off campus for meals or lodging. Data on the total number of admissions visitors was provided by the admissions staff. Our data regarding the spending of admissions visitors was provided by a brief written survey administered to families during information sessions at the admissions office during June of 2002 by Danielle McCann. Visitors were asked questions regarding their residence, their spending on lodging and meals, and any other types of spending they might be doing in the Carlisle area. This survey is provided in Appendix I.

Fifty-seven survey responses were collected from families visiting the admissions office. While none of these visitors were Cumberland county residents, 15 families were

* Other students contributing to our analysis of visitor spending were Elizabeth B. Pickard and Grant Violanti.

from 14 other locations in Pennsylvania, 40 were from 16 different states and 2 were from other countries, specifically Belgium and Indonesia. The residences of the admissions visitors who participated in our spending survey are presented in Table VI-1.

**Table VI-1: Visitor Survey Participants by State**

| STATE | # OF FAMILIES |
|---|---|
| PA | 14 |
| MD | 9 |
| MA | 5 |
| CT, NJ, NY, OH, VA | 3 |
| NH, TN, international | 2 |
| CA, DE, GA, ID, IL, KS, MS | 1 |

For the most part, these visits were the families' first to the Dickinson campus with only 3 respondents visiting for the second time. All of the families were on campus to attend an information session and tour the campus. Five prospective students were also undergoing admissions interviews. The average group of visitors included 2.7 persons, including a prospective student.

With regard to the spending done by the admissions visitors, the average visitor and her group reported purchasing 1.3 meals during their visit, most often at moderately priced restaurants costing about $10 per person. Twenty six percent of our respondents were staying overnight for 1 night in the Carlisle area and 28 percent were staying overnight for 1 night in nearby Pennsylvania college towns such as Gettysburg, Lancaster, Harrisburg, or Selinsgrove, all of which are outside of Cumberland County. Only 10 of the respondents, or 17.5 percent, said that they would spend money for other goods and services such as entertainment, clothing, souvenirs, and automobile expenses. The average spending on each of these expenses for those who did respond positively was $20 for entertainment, $47.50 for clothing and souvenirs, and $22.50 for automobile expenses, or $90 for all three categories. Assuming that all of the non-respondents are spending zero dollars on these categories,

average spending on these items equaled 17.5 percent of $90, or $15.75. These averages will be used to estimate total spending by admissions visitors later in the chapter.

***Total Admissions Visits***

The Admissions office provided data on the number of students who had visited the College by state, as shown in Table VI-2. The total number of students to visit the area for admissions purposes was 3,741 as of March 4, 2002. For the remainder of the year a total of

**Table VI-2: Admissions Visitors, 2001-2002***

| STATE | July '01-Feb. '02 | March-July '02 | STATE | July '01-Feb. '02 | March-July '02 |
|---|---|---|---|---|---|
| AK | 2 | 4 | MT | 2 | 1 |
| AL | 2 | 3 | NC | 21 | 26 |
| AR | 1 | 1 | ND | 0 | 0 |
| AZ | 5 | 2 | NE | 1 | 1 |
| CA | 35 | 56 | NH | 43 | 42 |
| CO | 18 | 14 | NJ | 433 | 299 |
| CT | 278 | 199 | NM | 3 | 9 |
| DC | 29 | 22 | NV | 1 | 0 |
| DE | 33 | 21 | NY | 378 | 300 |
| FL | 31 | 22 | OH | 66 | 56 |
| GA | 14 | 14 | OK | 2 | 0 |
| HI | 0 | 1 | OR | 7 | 6 |
| IA | 1 | 3 | PA | 1203 | 818 |
| ID | 2 | 4 | RI | 23 | 17 |
| IL | 34 | 25 | SC | 9 | 5 |
| IN | 11 | 11 | SD | 0 | 1 |
| KS | 0 | 7 | TN | 3 | 11 |
| KY | 4 | 0 | TX | 10 | 7 |
| LA | 2 | 4 | UT | 1 | 0 |
| MA | 231 | 180 | VA | 167 | 168 |
| MD | 467 | 402 | VT | 42 | 35 |
| ME | 60 | 44 | WA | 7 | 14 |
| MI | 10 | 8 | WI | 7 | 18 |
| MN | 16 | 7 | WV | 15 | 13 |
| MO | 10 | 11 | WY | 1 | 0 |
| MS | 0 | 3 | Other | xx | 35 |
| | | | TOTAL | 3,741 | 2,950 |

2,950 visitors were reported, producing an annual total of 6,691. The geographic distribution of these visitors is very widespread, though the majority of visitors are from Pennsylvania and bordering states.

***Direct Spending by Admissions Visitors***

Using the information gathered from our surveys, we can now estimate how much admissions visitors are spending in the area on meals. If visitors are eating 1.3 meals per visit at moderately priced restaurants (approx. $10 per person) with an average of 2.7 people in their group, then each group spends about $35.10 for meals. Also based on the survey, we estimate that 88 percent of the admissions visitors ate meals while in Carlisle. When applied to the total number of 6,691 visitors, our total estimate of restaurant spending equals 0.88 times 35.10 times 6,691 visitors, or $206,672.

Our next estimate is the amount spent on lodging in local motels. Twenty-six percent of our survey respondents reported spending one night in local motels while visiting the campus. Applying this percentage to the total number of visitors produces an estimated 1,740 groups of visitors that spent one night in the Carlisle area. A room rate of $75 was used for our calculations. This rate was found by averaging the prices of the most popular motels listed by survey respondents, using the double occupancy rates. Using this rate, total lodging expenses equal 0.26 x 6,691 groups of visitors x $75 per night, or $130,475.

When the two main expenses are added together it costs the average student and accompanying parent or parents $110 for meals and lodging. Adding the total spending on food and lodging produces an estimated total of $337,147. We also estimate an average of $15.75 per visitor on entertainment, clothing, souvenirs, and automobile expenses. When multiplied by 6,691 visitors the resulting total is $105,383. Adding this to our previous total, we estimate that admissions visitors spend a total of $442,530 in the Carlisle area.

## Student's Visitors

Another source of visitors is the current student body. The student spending survey discussed in Chapter 4 asked how many visitors the student hosted during the fall of 2001

and, if they did have visitors, how many of them spent the night in a local motel. The survey found that there were a total of 3,376 people who visited the respondents of the survey. However, this survey did not ask about the visitor's spending. Therefore we will limit our analysis of student visitors to their estimated expenditures on local lodging. Also, unlike the admissions visitors this data counts individual visitors, rather than groups. Therefore we will have to make an adjustment in our lodging numbers to account for the likelihood of double occupancy for many visitors. Subject to these limitations, we can estimate average visitors per student, average spending on lodging per visitor, and then total direct spending on lodging by visitors being hosted by Dickinson students. Due to the lack of data for other spending, this estimate will be highly understated.

***Freshmen***

Freshmen who responded to the survey reported a total of 1,223 visitors during the fall semester. According to the survey the average freshman had 4.9 visitors per person after an outlier of 100 visitors was removed from the data. The freshmen class also reported an average of 2.36 visitors per person who stayed over night in a motel in the fall 2001 semester. Applying these averages to the entire freshman class produces our estimates for total visits for the fall semester. Applying the average of 4.9 visitors to the 608 freshman produces an estimate of 2,979.2 visitors for the freshman class. Of the 2,979.2 visitors 48.16 percent, or 1,434.78, stayed in local motels or motels. We will adjust for double occupancy by subtracting one from the average visitors staying overnight per student. This adjustment produces and estimate of 1.36 motel rooms per freshman, 1.4 rooms per sophomore, 1.5 rooms per junior, and 1.7 rooms per senior. Using the same $75 average room cost as used previously in the admissions visitors section, those visiting freshmen who spend a night in a motel spent $62,180 for lodging for the fall semester only.

*Upper Class Visitors*

The same analysis can also be applied to the sophomore, junior and senior classes. Sophomores responding to the survey reported a total of 901 visitors, while juniors had 569 visitors and seniors had 681 visitors. Those sophomores reported an average of 4.7 visitors, of which an average of 2.4 spent the night in a motel. Applying these averages to the 525 sophomores on campus produced an estimate of 2,468 visitors for the fall semester. Of these 2,468 visitors, 51.06 percent, or 1,260, stayed in a Carlisle area motel. Again assuming a nightly cost of $75 and adjusting for double occupancy, visitors who stay in local motels spent 1.4 x $75 x 525, or $55,125, on lodging.

**TABLE VI-3: LODGING EXPENDITURES BY STUDENTS' VISITORS**

| Class | Local Students | Visitors Per Student (Total/Overnight) | Total Spending |
|---|---|---|---|
| Freshman | 609 | 4.9/2.4 | $62,180 |
| Sophomore | 525 | 4.7/2.4 | $55,125 |
| Junior | 328 | 5.3/2.5 | $36,900 |
| Senior | 448 | 5.6/2.7 | $57,120 |
| Total | 1,06 | */* | $211,325 |

The junior class had on average 5.3 visitors per student with an average of 2.5 spending the night in a Carlisle motel. The junior class has 328 students residing in Carlisle, therefore based on the survey responses we estimate 1,738 visitors for the junior class. Of these 1,738 visitors 47.17 percent, or 820, spent the night in a borough motel. Again, using the same motel costs and adjustment for double occupancy, visitors who stayed overnight in a motel would have spent 1.5 rooms per student x 328 students x $75, or $36,900, in the area.

Finally, the senior class reported an average of 5.6 visitors per person with 2.7 people staying in motels. The senior class has 448 students, which when multiplied by 5.6 visitors per student produces an estimate of 2,509 visitors. Of these 2,509 visitors 48.21 percent, or 1,209 visitors, stayed in a motel. Our spending estimate is 1.7 rooms per student x 448

students x $75, or $57,120 during the fall semester. For all classes, estimated lodging expenses total $211,325 for the fall semester.

We have no direct statistics for spring semester visitors, but we can make some educated guesses based on patterns discussed in our Economic Analysis of Policy class. The number of visitors to campus would be expected to be somewhat lower for the spring 2002 semester due to the absence of an official parents' weekend. However, an added source of visitors in the spring is May graduation, which is likely to bring a large number of visitors to Carlisle. Given the uncertain net effect of these two changes and our lack of information on all other types of visitor spending, we will assume that on balance spring visitors spending is equal to that during the fall semester. Therefore, we estimate that a total of $422,650 was spent by those visiting current Dickinson students for the 2001-2002 academic year. There are two offsetting biases in these results. On one hand our estimate of spending by students' visitors is significantly understated due to the absence of any estimated spending on items other than lodging. On the other hand, some local motels and hotels offer reduced rates for Dickinson visitors, a discount we did not include in our lodging figures. On balance this estimate is likely to be very conservative.

## Conclusion

Overall, the total direct spending by admissions visitors and the lodging expenditures of those who visit Dickinson students totals an estimated $865,180. We cannot estimate separate figures for Cumberland County and the Carlisle area in this chapter. The majority of this spending comes from admissions visitors, who spent about $443,000 while in Carlisle. On balance, our estimate for visitor's direct spending is almost certainly understated. While this figure is more conjectural than most in our study, it is also relatively small compared to other components of direct spending in the Carlisle area. Therefore our study is not very

sensitive to the understatement of visitor spending which is likely to be present in this estimate.

# Chapter VII: The Charitable, Cultural and Social Impact of the College*

In addition to its financial impact on the Carlisle area, Dickinson also provides a substantial charitable, cultural, and social impact on the Carlisle community. Dickinson College, as well as its employees and students, interact positively with the rest of the Carlisle community through community service, cultural events, and social opportunities. We will first describe the services provided by the College's cultural organizations, its community service organizations, its ecological and political organizations, and its other facilities. We will then describe the community volunteer work reported by Dickinson's employees and students, and estimate an implicit dollar value for this voluntary labor and donated facilities. The resultant estimate is somewhat over $1 million dollars.

## Cultural Organizations

Dickinson enhances the Carlisle area by providing a significant number of cultural events to the community free of charge. These events range from fine and performing arts events to athletic contests, lectures, and other presentations on contemporary issues. This section of the chapter provides brief descriptions of a sample of College organizations that provide cultural programs for the campus and community.

### *The Clarke Center*

The Clarke Center brings a number of speakers to campus each year, ranging from United States Congressmen to poets and dancers. These events are advertised to the community through press releases and mailing lists and approximately one-fifth of the audience at Clarke Center events are community members. An average small lecture brings

* Other students contributing to this chapter are Mindy Leader, Brian Pidgeon, and David Moss.

in an attendance of about 60 to 80 people, while larger events bring in about 100-125 people (Rankin).

***Common Hour***

Common Hour programs take place every Wednesday from 12:00 to 2:00. The College does not schedule classes or other activities so that all students and faculty can attend these events. They are also free of charge to the general public. Common Hour presentations differ each week and are sponsored by various departments or organizations on campus. Attendance ranges from 80 to 250 when held in its usual location in Rubendall Recital Hall or up to 800 when held in Anita Tuvin Schlechter Auditorium. The community is notified of Common Hour presentations when appropriate or by the department that is sponsoring the event (Nichols).

***The Public Affairs Symposium***

The Public Affairs Symposium is an annual three-day event that brings several speakers to campus to discuss different aspects of a central topic of social interest. Community members are contacted through mailing lists and press releases and they usually make up approximately half of the audience of each of the many sessions. Audience size varies from 20 to 150 during the daytime sessions and from 150 to 800 during the evening sessions. (Freese).

***The Trout Gallery***

The Trout Gallery sponsors 6 to 8 art exhibitions throughout each year and apparently brings more people from the community to the Dickinson campus than any other department or organization (Schlitt). It is open each day from Tuesday through Saturday and begins each exhibition with a reception that is also open to the public. The gallery also offers an outreach program through which community members are contacted about various exhibitions and

events. These notifications have almost tripled the number of community members attending the Trout Gallery (Keifer).

***Student Exhibitions and Performances***

Dickinson College offers three different arts related majors; Art & Art History, Music, and Theater & Dance. Each of these departments offers multiple performances or exhibits throughout the year, the majority of which are open and advertised to the community. The Art & Art History department offers one or two large exhibits each year and there are smaller exhibits of students' work as well. Students in the ceramic and wheel-working class make bowls every year for the Empty Bowls Dinner on campus. The Music Department offers approximately 40 performances per year. These performances include student and faculty recitals, choir, symphonic band, jazz ensemble, orchestra, Collegium Musicum, and chamber music concerts. There are also performances by the musical artists in residence, currently the Corigliano String Quartet. The Music department estimates that the average audience size is in the 100-200 person range, and that about half of the audience are from outside of the Dickinson community (Wilson).

The Theater & Dance department is home to the Mermaid Players theatrical group and the DTG dance group. The Mermaid Players and other theater groups perform about 9 times each year including 5 main-stage productions which run for 3-4 shows and draw an audience of approximately 200 per night. The four smaller productions have an average audience size of about 90 (Wronski). The smaller productions are free to the public while the main stage productions charge $3 for students and $5 for adults. DTG has fall and spring concerts with 3 performances each, one other single night performance and a common hour presentation. The average audience size for a DTG performance is 150 people. For theater

and dance performances, an estimated 1/3 of the audience comes from the community (Ginsburg).

***Touring Performers***

The Dickinson College Student Senate funds several boards and committees which bring all types of performers to the Dickinson campus. The Campus Activities Board (CAB) hosts a range of activities that are open to the public as well as the students including a film series, comedy series and other special events. For the film series, every weekend CAB hosts a different movie, usually something that has left theaters but that is not yet out on video. Each film is shown 3-5 times per weekend. The admission charge for each showing is $1. The comedy series offers 1 to 3 small performances each semester that are free of charge and 1 or 2 performances by big name comedians per year that have a $10-20 charge. The Concert Committee's fall and spring concerts also draw large crowds from the community. Performers in the past have included Vertical Horizon, Maceo Parker, Wyclef Jean, Strangefolk, Rusted Root, G. Love and Special Sauce, the Black Crowes, and the Kinks. Charges for the large fall and Spring Concerts are in the $10-20 range and are usually discounted for Dickinson students. No attendance figures have been provided for these events.

***Summary***

This wide range of cultural opportunities provided by academic departments, students, and faculty vary in popularity and familiarity beyond the boundaries of campus. However, the attendance from beyond the Dickinson community at music events, art exhibits, and the Public Affairs symposium alone totals perhaps 3,000 people. These cultural opportunities would not exist in the absence of the college. However, in this area our estimates are based only on the impressions of the faculty and administrators we interviewed,

an inadequate source of information. Therefore we will not include any imputed dollar value of these services in our overall economic impact estimates.

## Community Service and Charitable Groups

Community service in some form has recently been added to the requirements for graduation from Dickinson College. Aside from this recent action, however, community service has been a relatively common form of student and faculty activity, and is also promoted by the College administration as well. This section provides brief descriptions of several student or all-college service groups.

***Alpha Phi Omega***

Alpha Phi Omega (APO) is a co-ed service fraternity on campus with approximately 65 members. Each member is required to participate in a minimum of 10 hours of service per semester. This year, the organization completed a total of 1,035 hours of service. Activities that the organization is involved in include serving food at Salvation Army, helping with projects for Habitat for Humanity and assisting to cleanup a section of the North Mountain Trail. APO also raises money for the American Cancer Society's Daffodil Days and through a sleep-out for the Alma McLeod Homeless Shelter.

***Big/Little***

Big/Little is a student run organization that pairs interested students with children from the community. The students meet with the children a few times a month to talk, play games, etc. The 80 students involved interact with one or two children each and can play an important part in the children's lives (Booth).

***Fraternities and Sororities***

All social fraternities and sororities are required to participate in the Gold Star Program that requires a certain amount of community service activities during the academic

year. The program gives points for different types of philanthropy. Fraternities and sororities work with local charity organizations in the area including Habitat for Humanity, American Cancer Society, Salvation Army, Project S.H.A.R.E., the Leukemia Foundation, a local Multiple Sclerosis Chapter, March of Dimes, Red Cross, Toys for Tots, United Way and YMCA. Many participate in the Big-Little Program and work on various projects such as raising money for Stephanie Bailes, a severely ill child, and playing bingo with local elderly in Carlisle. Greek Life is also currently organizing a Parents Night out where Greek members will baby sit local children on a weekend for 3-4 hours. These organizations also offer events such as a haunted house and Easter egg hunts for local children (IFC).

## Ecological, Political, and Religious Organizations

The following organizations provide similar contributions to the community in the areas of public policy or religious activities.

***ALLARM***

ALLARM stands for Alliance for Aquatic Resource Monitoring. The Alliance does several things to monitor and maintain the watershed in the Carlisle area but focuses primarily on the Mully Grub and on Letort Creek, a famous trout stream which runs through the borough of Carlisle. Their activities include building an independent data base on the health of Central Pennsylvania's waterways, identifying target areas for mitigation, restoration, and protection of waterways, empowering the community with scientific knowledge, and providing Dickinson students an opportunity to benefit the community.

Within the past few years, ALLARM has done much to benefit the watershed in the Carlisle Area. They have demonstrated that the Mully Grub is contributing pollution to the Letort and have completed the first stage of a restoration project. ALLARM, along with several similar community organizations are also involved in a riparian planting project, in

which they care for plants donated by the Chesapeake Bay Foundation and transplant them into the Letort and other streams. They are also involved in community outreach programs to provide information about the watershed to the community (ALLARM web site).

***Amnesty International***

Amnesty International works with the worldwide association to help fight for human rights. The Dickinson chapter is made up of 20 active students, and hosts one major speaker per year, an annual Jamnesty concert, and film showings. The speaker is advertised throughout the community and draws in a total of about 40 people, approximately half of which are from the community. Jamnesty is an annual outdoor concert sponsored by Amnesty and draws in about 100 people. Amnesty also sponsors films concerning human rights. Both of these events are advertised to the community, but there are no records of how many community members attend (Egic).

***Pandora***

Pandora is a student organization devoted to political activism, and raising public awareness of lesbian, gay, bisexual and transgender issues. They organize weekly board meetings and coffee houses. Their primary effect on the Carlisle Community is the raising of awareness about these issues (Pandora website).

***Religious Organizations***

Religious groups on campus, such as the Office of Religious Life & Community Service, Dickinson Christian Fellowship (DCF), and Hillel, also offer cultural and social experiences for the students and community. For example, Hillel is a Jewish organization on campus that sponsors lectures, holiday celebrations, and concerts for the students and the Carlisle community. Programs for religious holidays are open to students and to the members of Beth Tikvah, the local Jewish congregation. Hillel draws an average of 40

people for their lectures and brunches, of which an average of 20 community members attend (Rosenthal).

The Dickinson Christian Fellowship (DCF) offers opportunities to serve and learn about God. They have meetings which strive to "build community, to nurture, and to support."(Leicht) They also have guest lecturers who discuss issues like alcohol, the media, and relationships. In the past they have also held gospel choirs and other performers. Members of the Carlisle community are welcome to attend these functions.

## Other Facilities and Services

Local citizens have access to facilities of the college such as the Waidner-Spahr library, the Kline Center pool and gym, and the college's computer laboratories. Many community groups including St. Patrick's Track & Field, the Bosler Library Auction, Summerfair, Big Spring and Carlisle High Schools, the Downtown Carlisle Association, the US Army War College, and Leadership Carlisle have also benefited from donated use of college facilities for their events. The foregone rental fees for these facilities totaled $23,325.52 in 2000 and $26,104.32 in 2001.

The college reaches out to the community as a major sponsor and contributor to events such as the Amani Festival, the Fall Harvest of the Arts Festival, Octubafest, and First Night Carlisle. Activities such as the International Film Series and "Talk of the Town" speakers' bureau are joint ventures launched with community organizations in response to the recommendations of the College-Community Task Force. Descriptions of two of the college service offices follow.

***Dickinson College Children's Center***

Dickinson College provides daycare and kindergarten for children age 6 weeks to 6 years old. They have a capacity of 80 and although priority is given to the children and

siblings of students, faculty and staff, about half the children at the center are from non-Dickinson families. Scholarships are available for needy children but currently no children at the center are on Scholarship. They cover the cost of care by charging tuition $118/week ($491.66/month) for kindergarteners to $129/week ($537.50/month). That's roughly $40,000 a month, half of which is being paid by non-Dickinson families.

## College-Community Partnerships

Recently, Dickinson has entered into partnerships with Carlisle area businesses, community groups, and governmental agencies. To fortify its relationship with the community and aid in the improvement of the downtown Carlisle area, Dickinson College extended a $250,000 loan for the building of a Comfort Suites Hotel as well as converting a $40,000 loan to a $10,000 contribution and $30,000 loan for the Redevelopment Authority's use in the Centenary project.

## Faculty and Staff Volunteerism

Dickinson College employees serve the Carlisle community through departmental programs, membership in community organizations and individual offerings of time and money. Of the 175 employee respondents to our survey 97, or 55%, participate in service to the community. Of those 97, 38% contribute 1-3 hours per week, 11% contribute 4-6 hours, 5% offer 7-10 hours and 2% provide 11-15 hours of community service per week. Eleven respondents did not complete the question and 38% answered none. Table 7-1 summarizes the number and percentage of respondents in each category.

In order to estimate a total number of service hours for Dickinson employees we took the mid-point of each range reported in table VII-1 times the number of respondents in that category, for a total of 336 hours. This represents an average of 1.93 hours per week

*Table VII-1: Reported Employee Community Service Hours*

| Number of Hours | Number of Respondents | Percentage of Respondents |
|---|---|---|
| None | 67 | 38% |
| 1-3 | 67 | 38% |
| 4-6 | 19 | 11% |
| 7-10 | 8 | 5% |
| 11-15 | 3 | 2% |
| Missing Data | 11 | 6% |

per employee, including those who do not participate. Multiplying this average by the 776 total employees produces an estimate of 1,498 hours per week or 77,921 hours per year.

To estimate a dollar value of the services provided by the employees to the local community, we assume that the community would pay a typical $6 per hour for these services in the absence of volunteers. This volunteer labor therefore has an implicit value of 77,921 x $6, or $467,526 per year. This number does not include monetary donations made by employees to local charities.

While employees listed over 70 organizations for whom they volunteer, the most frequently listed organizations were various religious organizations (26), the Carlisle Theatre and Hollywood on High Film series (16), the United Way of Carlisle/ Cumberland County (16), Project SHARE food bank (14) and the YMCA or YWCA (13). Table VII-2 lists different types of employee involvement in community groups as board or committee members. One notices that many of these activities involve managerial or professional tasks which if paid would be quite expensive. Therefore our previous assumption of an implicit value of $6 per hour is very conservative when applied to employees' voluntary activities.

Different academic departments also donate their services to the community. The Theatre and Dance and Music departments often provide free concerts and performances for the community. Professors from the Economics, International Business and Management, and Psychology departments, as well as many others, occasionally provide consulting

**Table VII-2: Employee Community Service Activities**

| | |
|---|---|
| Board Memberships | Carlisle Area Economic Development Corporation, Carlisle Theatre, Downtown Carlisle Association, Greater Carlisle Area Chamber of Commerce (Chair, Education Committee; Member, Executive Committee), Hope Station Opportunity Area (Chair, Council Development Committee; Member, Executive Committee), Leadership Carlisle (Vice-President; Member, Executive Committee; Chair, Alumni Committee), Program for Education, Enrichment, and Recreation, United Way of Carlisle and Cumberland County (Co-chair, 2001 Campaign; Member, Executive Board; Member, Board Development Committee; Co-chair, Community Investment Panel) |
| Other Committees | College-Community Connections Committee, Carlisle Area School District – Dickinson College Partnership, US Army War College 100th Anniversary Celebration, Borough of Carlisle Comprehensive Plan Update Steering Committee, Student Senate Community Relations, Habitat for Humanity Public Relations Committee for Capital Campaign |
| Other Community Involvement | Site Manager, First Night Performances at the College; Volunteer, DCA Corvette Parade; Volunteer, DCA and United Way, Fall Festival of the Arts; Master of Ceremonies, Borough's 250th Anniversary Concert; Actor, Borough's 250th Anniversary Play; Reviewer, MetroArts Program Selection Panel |
| Staff Support | Carlisle-Dickinson Council; Retired Professionals at Dickinson College Organization; US Army War College International Fellows Reception; Member, Search Committees; Allocations Review Committee |
| Volunteer | Member, Hollywood on High, Carlisle Theatre; Member and Docent, Carlisle Old Neighborhoods League |

services to local businesses and organizations. The total hours donated by Dickinson employees will be analyzed later in this chapter, but this evidence displays the breadth of the college employees' contributions to the community.

## Student Volunteerism

Dickinson College students also frequently volunteer their time and energy to the Carlisle community either through community service groups or on an individual basis. According to the results of the student spending survey, 425 out of the 766 students responding participate in community service. 47 student respondents did not complete the question and 394, or 38%, said that they do not participate in service. The 425 students who do perform service were asked to state the number of hours of service they complete per week and 40% answered 1 to 3 hours, 10% answered 4 to 6, 3% answered 7 to 10, 2% answered 11 to 15 and 1% answered over 15 hours. Table VII-3 below shows the number of respondents in each category.

We have two very different estimates of student community service. According to President Durden's Annual Report to the Community (October 2001), students donated approximately 13,933 hours of service to eleven particular organizations in the last year. In dollar terms, the value of the service provided by Dickinson students to the Carlisle community for these organizations is estimated at $83,598 if we assume that the students would otherwise be working for an average wage of $6 per hour. This number does not include funds raised by these groups, and more importantly does not include community service activities by individuals or other social organizations, and therefore represents a significant understatement of the total service activities of the student body.

**Table VII-3: Reported Student Community Service Hours**

| Number of Hours | Number of Respondents | Percentage of Respondents |
|---|---|---|
| None | 294 | 38% |
| 1-3 | 306 | 40% |
| 4-6 | 73 | 10% |
| 7-10 | 26 | 3% |
| 11-15 | 12 | 2% |
| Over 15 | 8 | 1% |
| Missing data | 47 | 6% |

Using our survey responses, taking the mid-point of each of the above categories and the minimum point for the highest category (15 hours or greater), survey respondents reported a total of 1,476 hours per week, or approximately 1.92 hours per week per student. This assumes that all missing answers contribute zero hours per week. Assuming that this activity is limited to two 15 week semesters per year, our estimated total would equal 1.92 hours per week per student x 1906 resident students x 30 weeks per year, or 109,786 hours per year. Again assuming a value of $6 per hour, this activity has an implicit value of $658,714 per year.

Students listed a total of 45 organizations or other places through which they volunteer. Students most often volunteered at the Salvation Army soup kitchen (30), the

YMCA/YWCA (21), the Project SHARE food bank (21), local churches and religious groups (18), and through American Red Cross blood drives (9). The campus-based community service organizations which students most often listed were Big/Little (42), tutoring programs (39), Greek life philanthropy (29), Habitat for Humanity (23), Adopt-a-Grandparent (20), America Reads (19) and Alpha Phi Omega (18).

In addition to those mentioned above, the College also offers Alternative Spring Break, Best Buddies, Circle K, Hands Across the Ages, and Special Kids. Members of the Dickinson Community who want to volunteer can also receive assistance from the Office of Religious Life and Community. The office not only lists the organizations on campus, but also provides a detailed list and contact information of various places in town where students and community members can volunteer (Office of Community Service).

All Dickinson College students must also complete a community experience as part of their requirements for a degree. The community experience requirement extends the students educational experience beyond Dickinson and into the world. The community experience requirement can be fulfilled through a for-credit internship, a community-oriented field study course, a study abroad experience or an approved service project (Online Bulletin). Many students complete the requirement through non-paid internships with local businesses, government agencies and community groups, another source of implicit economic activity donated by the College.

## Implicit Monetary Value of the College's Community Service Efforts

The final step in this analysis is to estimate a total implicit value for the range of cultural and charitable activities provided to the Carlisle community. However, only the charitable donations of volunteer hours and campus facilities will be included, due to some insurmountable obstacles to estimating an implicit value for the College's cultural events.

There are two basic approaches to valuing donated cultural activities. The first involves the production cost of the performances, but these exhibits and performances are generally provided by students or faculty and do not have an easily identifiable cost per performance. The other method is to survey audiences about their hypothetical willingness to pay for the performance, but no audience surveys were conducted as part of this study. Therefore no estimate of the monetary value of the College's cultural activities will be attempted.

However, when one totals the implicit value of the donated facilities and labor services by the Dickinson College community, an impressive total arises. This involves summing the value of foregone rental income from the donation of College facilities and the implicit value of employee and student volunteer activity. These results are summarized in Table VII-4. While this implicit value of over one million dollars is a relatively small

**Table VII-4: Implicit Value of Charitable Activities**

| SOURCE | TOTAL HOURS | IMPLICIT DOLLAR VALUE |
|---|---|---|
| Donated Campus Facilities | *** | $26,104 |
| Employee Volunteer Hours | 77,921 | $467,526 |
| Student Volunteer Hours | 109,786 | $658,714 |
| Total | 187,707 | $1,152,344 |

total compared to the College's financial and employment impact on the community, it nonetheless represents a significant benefit to Carlisle and to Cumberland County. Because this activity does not in most cases generate spendable income for others, we will not include an estimated multiplier effect for this section of the study.

## Conclusion

Dickinson's contributions to the Carlisle community are highly valuable for the charitable, cultural and social services they provide, although these cannot always be easily translated into dollar terms. Dickinson provides the Carlisle community and Cumberland

County with many charitable and cultural services, most of which are free of charge to the community. Dickinson's various volunteer organizations have impacts on many different types of people including the elderly, disadvantaged children, and the poor. There are also organizations that help to clean up the local environment. Dickinson also gives the community many opportunities to experience different cultures from around the world.

Dickinson College has been working to enhance its contribution to the Carlisle community in several ways. Actions which Dickinson has taken to improve its commitment to Carlisle include establishing a Vice President of College and Community Development and a College-Community Connections Committee. The main objectives in the College-Community Task Force report in May of 2000 were to enhance community enrichment, diversity and multiculturalism, and the local influence of the College's international character. By bolstering current operations and introducing new opportunities, the College is meeting these goals.

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CAB

Concert Committee

## Chapter VIII: Dickinson's Summer Educational Programs

Throughout the summer months, the Dickinson College campus often seems as busy as it is during the academic year. A small percentage of Dickinson College students stay on campus or in the Carlisle area in the summer either to attend summer school or work, while additional students from other colleges also attend Dickinson's summer sessions. Also, hundreds of Dickinson College alumni travel to the campus in June for the annual alumni weekend. However, the campus is kept busy during the summer months primarily by a series of community events, by the Johns Hopkins Center for Talented Youth (CTY) summer academic sessions, by the Central Pennsylvania Youth Ballet (CPYB) summer dance program, and by the Washington Redskins training camp.

The community makes use of campus facilities more often during the summer months because they are more readily available. There are private family events like retirement parties, wedding receptions, and bar and baht mitzvahs as well as annual community-wide events such as Downtown Doggie Days, Summerfair, and the "Bluegrass on the Grass" concert. Local youth are on campus for high school and youth track meets, physics programs, and the Red Devils Basketball camps. Many businesses and organizations such as the American Business Women's Association, Bosler Library, Carlisle Chamber of Commerce, Pennsylvania Banker's Association, Dickinson Law School and others use facilities of the College for conferences, picnics, or meetings.

However, our primary interest in this chapter is to quantify the economic impact of the three main summer educational programs, the Dickinson College Summer Sessions and the Center for Talented Youth (CTY) program, and the Central Pennsylvania Youth Ballet

(CPYB) summer program. The Washington Redskins' training camp will be analyzed in a separate chapter to follow.

## Dickinson College Summer Sessions*

Summer school offers a chance for college students to acquire additional college credits as well as expand their education. This summer Dickinson College offered two summer sessions. The first session began on June 3 and ended July 5. This session included 119 students taking 26 classes. The second session began on July 9 and ended August 9. This session held 120 students taking 29 classes (Fleming). While some students took classes in both sessions, we will treat them as separate individuals for statistical convenience.

Of the total 239 summer school enrollees, 41 students lived in on-campus dorms, including 21 students from the first session and 20 students from the second session. Although the majority of the summer students were from Dickinson, students from seventeen other schools also attended Dickinson. Some of these schools included Gettysburg, Franklin & Marshall, Bucknell, Harvard, and Lehigh Universities (Fleming).

Our analysis of the summer school program's impact on Carlisle and Cumberland County is based on two sources of information. One information source is a set of spending surveys we collected from summer school students during the first summer school session in 2002. The other source of information is taken from a "Summer, 2001 - Program review" created by Diane Fleming. Ms. Fleming's report provides the breakdown of Dickinson College's overall income revenue and spending of the past 2001 summer school program. Diane Fleming and David Walker also provided additional data regarding tuition and attendance for the 2002 summer program.

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* Daniel Schlesinger also contributed to our analysis of the Dickinson Summer Sessions.

***Summer School Tuition, Room, and Board***

Dickinson College collected $472,750 in tuition for the 2002 summer academic sessions. In addition to the tuition collected, the college also received $77,602 in room charges and $47,135 in board charges. Therefore, the total income collected by Dickinson College was $597,487. (David Walker)

***Summer School Student Spending***

For summer school, our spending surveys were distributed and collected primarily during classes. These surveys produced responses from 46 students, or 38 percent of the total enrollees. The respondents included 7 rising sophomores, 14 juniors, and 25 seniors. The majority of respondents were Dickinson students (36), followed by 9 from Gettysburg and 1 from Franklin & Marshall. Of those surveyed, the majority resided in on-campus Dickinson housing (25), with smaller numbers in non-Dickinson housing (11), or with their families (6). Four others lived either in Gettysburg dorms or apartments and one non-traditional student lived in her own home. Most student spending involved rent, utilities, and food and drink. The average off-campus resident responding to the survey spent $300 on rent and $77 on utilities per month/session. If we assume that on average each student pays rent and utilities for 1.5 months per session, off-campus students for both sessions spent a total of $111,969 on rent ($89,100) and utilities ($22,869).

According to our survey, the most popular place to spend money was in the Carlisle Plaza Mall/Giant area (15), followed by Downtown (8), near Campus (6), and Walnut Bottom Road (2). Other places listed included the Harrisburg area, Gettysburg, the Farmer's Market and local golf courses. Students listed local restaurants (38), the Giant food store (22), and K-mart (8) as the places from which they most often make purchases. On average, summer school students dine out or have food delivered twice per week.

The survey asked about weekly spending in the Carlisle area and in Cumberland County for food and drink, clothing, entertainment, automobile and other expenses. Results indicate that a typical summer school student living on-campus spends a total of $81 per week, while off-campus students report spending $66. On-campus students may have a higher budget than those living off-campus because some off-campus students live with their families or outside of the Carlisle area. With the average weekly budget of $81 for on-campus students and the summer school duration of 6 weeks (5 weeks of classes plus a few days surrounding the beginning and end of the sessions), we estimate that the first session students spent $10,206 and students in the second session spent $9,720. Off-campus students spent $38,808 in session 1 and $39,600 during session 2. A total of $98,334 was spent in the Carlisle area by all students in both sessions. Table VIII-1 summarizes these findings.

**Table VIII-1: Reported Spending by Summer Session Students**

| | Session I, June 4-July 6 | | | SESSION II, JULY10-AUGUST 10 | | |
|---|---|---|---|---|---|---|
| **Category** | **On-Campus** | **Off-Campus** | **Total** | **On-Campus** | **Off-Campus** | **Total** |
| # of Students | 21 | 98 | 119 | 20 | 100 | 120 |
| Consumption | $10,206 | $38,808 | $49,014 | $9,720 | $39,600 | $49,320 |
| Utilities | $0.00 | $11,319 | $11,319 | $0.00 | $11,550 | $11,550 |
| Rent | $0.00 | $44,100 | $44,100 | $0.00 | $45,000 | $45,000 |
| **Session Total** | | | **$104,433** | | | **$105,870** |
| **Summer Total** | | | | | | **$210,303** |

After totaling all of the individual direct spending results, Dickinson College summer program students contributed $210,303 to the Cumberland County economy in the summer of 2002, of which $98,334 flowed to the Carlisle area.

***Relation to Academic Year Spending***

To double check our estimates of summer school student spending and compare spending done by summer school students to academic year students, we applied the monthly averages for student spending during the academic year to the number of students participating in summer school. This allows us to compare the total spending of the actual

summer school students to the spending that would have occurred if the summer school students reported the same average spending as academic year students. The spending categories we calculated using academic year averages include average on-campus direct spending, average off-campus direct spending, average utilities (off campus only), and average rent (off campus only). The computed averages from the academic year survey are presented in Table VIII-2.

**Table VIII-2: Academic Year Student Spending Averages**

| CATEGORY | AVERAGE VALUE |
|---|---|
| Avg. On-Campus Direct Spending (per month) | $146 |
| Avg. Off-Campus Direct Spending (per month) | $282 |
| Avg. Utilities (Off Campus only) | $100 |
| Avg. Rent (Off Campus Only) | $356 |

**computed averages based on data collected from the student survey*

Because the academic year students reported monthly averages and summer school students are on campus for a 6 week period, we must first multiply the averages in Table VIII-2 by 1.5 to calculate the comparable per-session average. The averages from Table VIII-2 can then be multiplied by the number of summer school students to estimate the summer spending that would occur if students followed academic year spending patterns. For example, if one wanted to determine the total direct spending of an on-campus student in the first session of summer school, one would multiply the number of on-campus students (21) by the average on-campus spending adjusted for the time period ($146 * 1.5 or $219). The resulting direct spending for on-campus students would be $4,599 for 1st session students. This process is repeated for each of the averages and placed in Table VIII-3 below.

**Table VIII-3:**
**Hypothetical Spending by Summer Students Using Academic Year Averages**

| | Session I, June 4-July 6 | | | SESSION II, JULY10-AUGUST 10 | | |
|---|---|---|---|---|---|---|
| **Category** | **On-Campus** | **Off-Campus** | **Total** | **On-Campus** | **Off-Campus** | **Total** |
| # of Students | 21 | 98 | 119 | 20 | 100 | 120 |
| T. Direct Spending | $4,599 | $41,454 | $46,053 | $4,380 | $42,300 | $46,680 |
| T. Util. Revenue | $0.00 | $14,700 | $14,700 | $0.00 | $15,000 | $15,000 |
| T. Rent Revenue | $0.00 | $52,332 | $52,332 | $0.00 | $53,400 | $53,400 |
| **Session Total** | | | **$113,085** | | | **$115,080** |
| **Summer Total** | | | | | | **$228,165** |

After totaling all of the individual direct spending results, Dickinson College summer school students would have contributed $228,165 to Cumberland County if their spending equaled that of academic year students, as opposed to $210,303 for the actual summer school spending pattern. This estimated total is different from the actual total calculated through summer student survey responses by only $17,862, or 8.5 percent of the actual figure, suggesting that these estimates are valid despite the relatively small summer school sample.

There are differences in the distribution of summer and academic year spending, however. Summer school students have different spending patterns across product categories, with more money being spent on items such as food, clothing, and entertainment, and less on rent and utilities. This may be occurring because there are fewer social activities on the campus in the summer months, so summer school students spend more on entertainment in the community. Most summer school students do not have meal plans and therefore are buying more groceries. Also, many summer school students are sub-letting the apartments of academic year students, which given the lower overall demand during the summer should reduce their average rent.

***Conclusion***

Dickinson College generates significant student spending in Cumberland County during the regular academic sessions. In comparison, Dickinson's summer sessions involve a

much smaller number of students with a correspondingly smaller amount of direct spending. Based on our spending surveys and additional information provided by the Summer Programs office, we estimate that Dickinson College summer students contributed $210,303 to the Cumberland County economy in the summer of 2002, of which $98,334 flowed to the Carlisle area.

## Center for Talented Youth Summer Program**

The Center for Talented Youth, or CTY, was founded by Johns Hopkins University as an initiative aimed at recognizing and rewarding young people from the 2nd to 11th grade level with an opportunity to enhance their academic capabilities. Since its inception in 1979, CTY has expanded from its original objective of talent identification to include summer academic and distance education programs, consultation services, and research opportunities, among others. Although the vast majority of students associated with CTY are associated with the center's talent search, over 90,000 in 2000, other CTY programs have witnessed significant gains in involvement over time. For example, the CTY's summer academic programs are now held at sixteen colleges and universities in five different states (CTY Home). Nationally, as well as on a smaller scale at Dickinson, the CTY summer programs are truly international. Nine thousand students from forty-five states and twenty-six different countries attended CTY summer programs in 2001.

The CTY program at Dickinson hosts two 3 week summer sessions for junior and senior high school students. In 2002, 396 students attended Session I at Dickinson, and 394 attended Session II, for a summer total of 790. The Dickinson College-based CTY program is

** Matthew Simpson also contributed to our analysis of the C.T.Y. program.

available to students from the 7th to 11th grade and primarily offers courses in mathematics, sciences, philosophy and English (CTY Summer).

However, despite the growth of these programs their economic impact is generally limited. Though some communities whose colleges and universities are hosting these summer programs may see more benefits than others, the Dickinson College CTY program has produced modest gains for Carlisle and Cumberland County.

***CTY Employees***

One factor limiting CTY's impact is that CTY employees are not local residents. Therefore their income does not represent local income to the community, and their spending while in Carlisle is limited. At the Dickinson program 28 instructors were employed for the first three weeks, while 27 were employed for the second three week session. Instructors teach 4-5 hours a day, 5 days per week, for 3 weeks. They also hold two-hour academic sessions at night and as a result their free time is limited, except for weekends (Employment Application). In addition, 28 instructional assistants are hired from a national applicant pool. These assistants attend classes and attend to duties such as photocopying, arranging lesson plans, and on occasion teaching a class. Thirdly, there were 28 resident assistants per session. RAs monitor students during the time they are not in classes and communicate with the instructors and administrators regarding the welfare of the students. Finally, there are 14 administrators in Carlisle to oversee the CTY program. The salaries for each of these respective positions can be seen in Table VIII-4 (CTY Summer). Room and board is also provided for these individuals as they all live in the dorms and eat their meals in the Dickinson College cafeteria. Such a service, provided by Johns Hopkins and CTY, hinders

**Table VIII-4: CTY Employee Pay Scale**

| POSITION | SALARY |
|---|---|
| Administrator | $1,100 - $7,200 |
| Instructor | $1,800 - $2,800 |
| Instructional Assistant | $900 |
| Residential Assistant | $1,000 |

*the salaries of administrators vary by position, and the salaries of instructors vary with education and experience

what would normally be direct spending in the Carlisle community for groceries, rent, and other living expenses. Spending is also further limited because employees usually do not go off-campus with regularity. Instead, most of the time they have is spent supervising and working with the children.

***CTY Staff Spending***

A brief spending survey was distributed to the professional staff near the end of the second session. A total of 18 surveys were returned. On average, the reported spending per week for this group was slightly less than for the students. Although this survey did not differentiate between spending in Carlisle and elsewhere in the county, observing the specific locations of staff spending indicates that nearly all occurs in the Carlisle area.

The staff survey respondents spend most of their money on food and drink, primarily at local restaurants and taverns. Many respondents left some of the other spending categories blank, which we will interpret as zeros. On average, the respondents reported spending $23.44 per week on food, $6.11 on entertainment, 56 cents on auto maintenance (there was one non-zero response for this category), and $5.56 on other items, primarily books. Total spending averaged $35.67 per week. While some respondents reported staying in Carlisle for 7 weeks, we will use the more common answer of six weeks for the average staff member in compiling our estimated totals.

With the exception of instructors, the total number of employees was constant throughout the two sessions. Therefore we will assume that an average of 97.5 employees stayed in Carlisle for 6 weeks, and spent a total of $35.67 per week. Multiplying these three figures produces total staff spending in Carlisle of $20,867. This figure is far lower than the student estimate, and quite low by the standards of this study.

***CTY Student Spending***

All fees paid by the students and their families go directly to Johns Hopkins, which in turn pays Dickinson for the use of its facilities. Also, the students encounter expenses once they reach Dickinson. For instance, students must purchase the proper books for their classes in the Dickinson College Bookstore. On average students pay $80-85 in books, thus representing direct spending to Dickinson (Summer Site Info). Total spending on books equals 396 x $82.50, or $32,670, for Session I and $32,505 for Session II. Another form of a direct spending lies in the laundry service Dickinson supplies, which the CTY brochure recommends students bring $10 in quarters for (Summer Site Info). Once more, the math is fairly simple and when the figures are computed this laundry spending equals $3,960 for Session I and $3,940 for Session II, provided that the students use the entire $10.

Students, like the CTY staff members, do not have much free time because of the regimented schedules. However, because there are such large numbers of students, and they do take supervised trips off campus, they do have a modest impact on the Carlisle area through their spending on consumer goods. CTY summer students were surveyed during Session I of 2002, yielding 139 responses. Of the respondents, 65 were male and 74 were female. In terms of age, the respondents included 116 students in the 10-15 age bracket, 21 in the 16-20 bracket, and 2 respondents over 20. The majority of students were from outside of

the state of Pennsylvania (98), and there were an additional 5 students from other countries. 36 students were PA residents and 5 resided in Cumberland County.

Students are not permitted to leave the campus area unless with RA's or on field trips so most students (134) reported spending the most money on or near campus. Most spending occurred in the Holland Union Building (HUB), at the Devil's Den convenience store and the College Bookstore. Students visited the HUB stores an average of 3.6 times per week spending approximately $4.20 each visit. The most popular places to spend money other than in the HUB were dining out at or ordering food from Italian or Chinese restaurants, which students did on average 1.5 times per week spending approximately $7 each time. Students also spent lesser amounts of money on ice cream, movies, and vending machines.

The calculated average weekly budget per student on food, clothing, entertainment and other expenses is $26 in Carlisle and $20 elsewhere in the county, for a total of $46 for the county as a whole. At these budget levels, students in Session I are contributing $ 30,888 to the Carlisle area, $23,760 to other parts of Cumberland County, and $54,648 to the county as a whole. Based on the same average spending, Session II contributes $30,732 to Carlisle, $23,640 elsewhere in the county, and $54, 372 to Cumberland County as a whole. The total spending for both sessions totals $61,620 for Carlisle and $109,020 for Cumberland County.

In conclusion if each student spends $80-85 on campus for books and $10 on laundry, the direct spending to the college is roughly $92.50 per student. From these figures the direct spending on these items during Session I is approximately $36,630 and for Session II the estimate is $36,465. When these two totals are combined students have a direct spending impact of $73,095 on campus, all of which takes place in Carlisle. Adding the spending on other consumer items produces total student spending of $134,715 in Carlisle and $182,115 in Cumberland County.

*CTY Visitor Spending*

There is also a small impact from the parents who come to visit their students while at the program. An estimate of this spending is very difficult to gauge, however. Students were asked in the surveys how often their parents visited during their time at Dickinson excluding their arrival and departure. However, because a majority of the students are from out of state and the CTY program provides shuttles from the Harrisburg airport and train station, parents may not be dropping off and picking up students. Students responses to the number of visits from family and friends were as follows: 110 students reported no visits , 21 reported 1 to 2 visits, one reported 3 to 4 visits, and three reported 5 or more visits. All of these three were from Cumberland County. CTY students also reported a total of 17 overnight stays in local motels. The students estimated that their visitors spend an average of $65 per visit, which we will assume does not include motel costs.

Assuming that our sample is representative of the students as a whole, and that each category of visits can be approximated by its midpoint, we estimate that 15.6 percent of the 790 students received an average of 1.5 visits, for a total of 1185 visits. 0.74 percent reported an average of 3.5 visits, for a total of roughly 21 visits. The visits from Cumberland County residents do not constitute a net gain in economic activity.

If each of these visits resulted in $65 in total spending, excluding lodging costs, the net gain in local spending would equal (1185 + 21 visits) x $65, or $78,390. Hotel costs based on other surveys average about $75 per night. Total estimated lodging expenses therefore equal $75 per night x 17 overnight stays, for a relatively small total of $1,275. Overall, therefore, visitor spending related to the CTY program totals an estimated $78,390 plus $1,275, or $79,665. We do not know where in the area this visitor spending occurs. We

can safely assume that a large majority occurs within Cumberland County, but will not hazard a guess as to how much occurs within Carlisle.

***CTY Local Business Accounts***

The CTY program also impacts the Carlisle area through official expenditures. It has 11 business accounts with local businesses for items for the program and staff including office supplies, entertainment funds and food. 10 of these businesses are in the Carlisle area and one (Wal-Mart) is outside Carlisle but still within Cumberland County. Therefore the total amount spent by CTY in the county is $5,570 but only $4,770 in Carlisle. Table VIII-5 below lists the businesses and amounts contracted for by CTY.

**Table VIII-5: CTY Program Expenditures**

| BUSINESS | AMOUNT |
|---|---|
| K-Mart | $1,000 |
| Phillips | $800 |
| Wal-Mart* | $800 |
| Papa John's Pizza | $700 |
| California Café | $600 |
| The Party Store | $600 |
| Giant Food Store | $500 |
| Staples | $300 |
| Blockbuster Video | $110 |
| Dollar Tree | $100 |
| Mandy's Coffee Shop | $60 |
| **TOTAL** | **$5,570** |

Of this total of $5,570, all but the Wal-Mart spending occurred in the Carlisle area. Therefore Carlisle spending by the CTY program totals $4,770.

***CTY Payments To Dickinson***

The final way that Dickinson and its surrounding area benefit from the CTY summer program is through payments from Johns Hopkins University to Dickinson College for the use of its campus and facilities. Dickinson charges Johns Hopkins for such things as dormitory use, utilities, cafeteria food, the ability to use the academic buildings, the Kline

Center, and the money need to operate them. For Summer 2002, these payments totaled $740,449 (Walker).

**Table VIII-6: Total CTY Direct Spending**

| Spending Category | Carlisle Direct Spending | County Direct Spending |
|---|---|---|
| Payments to Dickinson | $740,449 | $740,449 |
| Student Spending | $134,715 | $182,115 |
| Staff Spending | $20,867 | $20,867 |
| CTY Purchases | $4,770 | $5,570 |
| Visitor Spending | ? | $79,665 |
| Total | $900,801 | $1,028,666 |

Overall, CTY provided an estimated $1,028,666 in direct spending to Cumberland County, of which $900,801 flowed to the Carlisle area.

***Conclusion***

While the numbers here may seem large on an individual basis, compared to the overall benefits that Dickinson College annually exerts on the city of Carlisle and Cumberland County itself, these totals are relatively small. In fact, the most essential benefits from the program do not involve monetary reward but intellectual gain.

## Dickinson's Contribution to The Central Pennsylvania Youth Ballet Summer Program[***]

The Central Pennsylvania Youth Ballet (CPYB) summer program, under the artistic direction of Marcia Dale Weary, is an intensive 5-week program for serious ballet students ranging from ages 3 to 21 or older. With over 600 students, it is also the nation's largest. This summer concludes Ms. Weary's forty-seventh year of leading the Central Pennsylvania

[***] Gwyneth Carmichael also contributed to our analysis of the CPYB Summer Program.

Youth Ballet in Carlisle. Ms. Weary opened her school of ballet in 1955, which at the time consisted only of students from the area and a renovated barn holding three (later four) small dance studios. The barn is still used for some CPYB classes, but since 1999 the primary facility for CPYB as been a set of six large studios in the former Kinney Warehouse on Orange Street. This property is owned by Dickinson College, and the portion of the warehouse devoted to studio space is rented to the Youth Ballet. In addition to these two sites, several other Dickinson facilities are utilized for classes during the summer program, including the HUB dance studio, Mathers Theater, The Depot, and the Kline Center dance studio. Also, non-local students generally live in Dickinson College dormitories during the summer program. Therefore, while CPYB existed before establishing its link to Dickinson College, the alliance between CPYB and Dickinson College has significantly increased the capacity of CPYB's summer and school year programs, and has contributed to CPYB's international reputation in the dance world.

Dickinson College's impact on the Central Pennsylvania Youth Ballet Summer Program is based on two aspects of their use of college facilities. We will assume that without the CPYB-Dickinson connection there would be no dorm space for non-local students, which would limit the summer program to a modest number of local students. This was indeed the pattern of the summer program before the CPYB started utilizing dorm space at the college. The second component of Dickinson's impact on CPYB numbers comes through the effect of the Kinney warehouse studios on the increased attendance of local students during the summer program. In addition to the warehouse's effect on the summer program, the quality and spaciousness of its new dance facilities has had a notable effect on the school year program. The student body during the school year has become far more geographically diverse as students from elsewhere in the United States and other countries

are drawn in greater numbers to Carlisle. However, we are not in a position to estimate the academic year impact of the facility in our current study.

***Central Pennsylvania Youth Ballet Enrollment***

The CPYB summer program has experienced a significant increase in enrollment of both local and non-local students over the past decade, as well as an increasingly widespread student body. The 2001 summer program included children from 44 different states, Canada, Honduras and Taiwan (Wingard). In 2002 our partial survey included students from 33 states, 2 territories, and one foreign country (India). (See Table VIII-7).

**Table VIII-7: CPYB Attendance**

| YEAR | OTHER LOCAL | CPYB | TOTAL LOCAL/ CPYB (COMMUTERS) | NON-LOCAL | TOTAL STUDENTS |
|---|---|---|---|---|---|
| 1990 | | | | | 262 |
| 1997 | | | | | 353 |
| 1998 | | | 142 | 283 | 425 |
| 1999 | 41 | 84 | 125 | 275 | 400 |
| 2000 | 49 | 115 | 164 | 328 | 492 |
| 2001 | 49 | 159 | 208 | 370 | 578 |
| 2002 | 66 | 110 | 235* | 371 | 606 |

**Total local students for 2002 includes open classes for adults and others. The CPYB and other Local numbers do not.*

The table divides the students into academic year CPYB students, other local commuters, and non-local students. In the 2001 season, 578 students were enrolled in the summer program. Of these, 159 were regular CPYB students and 49 were local commuters from other programs in Central Pennsylvania. These two groups will be combined and referred to as local students.

Table VIII-7 also shows the accelerating growth of the program in the past few years. From 1990 to 1999, the increase in total students equaled about 4.8 percent per year. From 1999 to 2001 the annual rate of increase rose to 20 percent, or over four times the earlier rate. The slower growth between 2001 and 2002 (again 4.8 percent) is indicative of a program which has reached a new and

larger capacity. Relatively modest growth in attendance can be expected in the future unless additional facilities become available. If the older growth rate of 4.8 percent had continued from 1999 to 2001, the 2001 and 2002 summer student totals would have been 439 and 460, respectively. Of these the local students would have comprised approximately one third, or 146 and 153. The actual numbers of local students, 208 and 235, are far higher than would have been true under the previous growth rate.

Our analysis of the economic impact of the College on CPYB's summer program will assume that Dickinson College's facilities have permitted the housing of all non-local students, and that the new warehouse has created the accelerated growth in the local as well as non-local attendance during the past few years. Therefore the added attendance in CPYB's summer program attributable to Dickinson's facilities equals 371 non-local students plus 82 additional local students for 2002. While CPYB has experienced considerable recent national press coverage in the dance world, its reputation was already substantial prior to 1999. The primary factor in this acceleration in growth is almost certainly the opening of the new warehouse studios on property owned by Dickinson College.

This year's non-local students come to Carlisle from a very wide range of locations, as can be seen in Table VIII-8. The regions are defined according to the Federal definition displayed in the above map (Source: *www.fedstats.gov/* )

**Table VIII-8: Residence of Non-Local CPYB students, 2002***

| REGION | SURVEY RESPONDENTS | ESTIMATED TOTAL |
|---|---|---|
| Pennsylvania | 25 | 43 |
| Other Northeast | 90 | 153 |
| South | 63 | 107 |
| Midwest | 19 | 32 |
| West | 15 | 26 |
| Other Nations or Territories | 4 | 7 |

***Added CPYB Summer Revenue***

Summer program tuition for all students during the 2001 season was $1,125, and during 2002 tuition was $1,190. Room and board costs totaled $2,010 in 2001 and $2175 in 2002. Because the data necessary to compare 2002 revenues to 1998 revenues is unavailable, we must estimate earlier tuition and room and board costs from more recent data, and also estimate the number of local versus non-local students for earlier years. Tuition and room and board costs rise each year by a fairly consistent percentage (Wingard). Between the



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2001 and 2002 summer tuition costs increased by 5.78%. The difference between the 2002 and 2001 room and board fees was an increase of 8.21%. We averaged these percentages to determine an estimated earlier rate of change, then estimated the 1998-2000 figures from these rates. (See Table VIII-9). Until this year, the ratio of local to non-local has been fairly constant throughout the last three years at 2 non-local students for each local dancer.

**Table VIII-9: Estimated CPYB Costs Per Student**

| Year | Tuition For Local Students | Room & Board | Cost For Non-Local Students (Tuition + Room & Board) |
|---|---|---|---|
| 2002 | $1,190.00 | $2,175.00 | $3,365.00 |
| 2001 | $1,125.00 | $2,010.00 | $3,135.00 |
| 2000 | $1,063.00 | $1,857.00 | $2,920.00 |
| 1999 | $1,005.00 | $1,715.00 | $2,720.00 |
| 1998 | $950.00 | $1,585.00 | $2,535.00 |

*The 2002 and 2001 figures were provided by CPYB. The 1998-2000 figures have been estimated based on the approximate percentage increase provided by the CPYB.*

In 1998, the estimated tuition for an anticipated 142 local students was $950 dollars per student, yielding approximately $134,900 for the season. The tuition plus room and board ($2,535 per student) for the estimated 283 non-local students gives us a total of $717,405. This provides us with estimated total revenue of $852,305 for the 1998 season.

First we will estimate the added revenue from the 2001 summer program attributable to Dickinson's facilities. First, the number of local students has risen by 66 people and the number of non-local students by 87 people. Also, total revenue has increased by $541,645 between 1998 and 2001, with $442,545 of this difference collected from the increase in non-local students (see Table VIII-10). Now if we want to assess the impact that Dickinson has made to the program we need to subtract the local revenue in 1998 from the total revenue in 2001, leaving us with the money gained from the total number of non-local students and the increased number of local students. Therefore, $1,393,950 minus $134,900 gives us a total

of $1,259,050, our estimate of the overall growth of the program attributed to Dickinson College between 1998 and 2001.

**Table VIII-10: Estimated CPYB Tuition and Housing Revenue, 1998 and 2001**

| Year | Local | Total (Tuition Only) | Non-Local | Total (Room & Board + Tuition) | Total Revenue |
|---|---|---|---|---|---|
| 1998 | 142 | $134,900 | 283 | $717,405 | $852,305 |
| 2001 | 208 | $234,000 | 370 | $1,159,950 | $1,393,950 |
| Difference between 1998 & 2001 | 66 | $99,100 | 87 | $442,545 | $541,645 |

Table VIII-10 shows the estimated revenues for 1998 (the year before the Warehouse was built) and last year, prior to any distribution of salaries, scholarships, cost of utilities and other company expenses. It is broken down by local and non-local tuition and room and board expenses. Also shown is the difference in the growth and generated revenues between 2001 and 1998. The statistics for 1998 are italicized because the breakdown of local versus non-local students are based on the 1/3 local to 2/3 non-local ratio of previous years.

The corresponding impact of the college on the summer program for 2002 is somewhat larger, due primarily to the tuition increase. The College's contribution to CPYB's tuition through added local students equals 82 additional students x $1,190 in tuition, or $97,580. The total revenue for tuition and room and board for non-local students equals 371 total students x ($1,190 tuition + $2,175 room and board), or $1,248,415. Therefore the added tuition and room and board from the CPYB summer program due to its use of Dickinson facilities equals $1,345,995.

The above totals assume that all non-local students live in the campus dormitories, which is not always the case. Local families host roughly a dozen CPYB summer students. This is often a less expensive alternative for the students and their families. Students staying with families pay approximately $700 for room and board for the summer session, or $8,400

for the dozen students choosing this option. This added revenue is extremely small relative to the dormitory and tuition revenue, and can reasonably be ignored in the final tally.

***CPYB Student Spending***

CPYB students are generally occupied with their 4 to 5½ hours of dance class per day, but do purchase food and beverage items, rent videos, attend local movie theaters, and take rare but noteworthy field trips to area malls. The students' much anticipated field trip to Hershey Park does not add to Cumberland County's economy. As with other summer programs at Dickinson, we surveyed the ballet students regarding their spending. As with the other groups surveyed, we will use the surveys to construct average spending figures, then multiply these averages by the number of local and non-local students estimated to be in Carlisle because of CPYB's access to Dickinson College facilities.

The CPYB surveys were distributed in 3 ways. A small group was surveyed between classes at the warehouse, and others answered surveys distributed in the Holland Union Building. However, the large majority were distributed to the students in Adams and Drayer Halls by dormitory supervisors. We owe special thanks to Lynne Bellinger and Barclay Pease for coordinating the dormitory surveys. A total of 223 surveys were returned, of which only 5 were from local students.

Many respondents left categories blank, and far fewer filled in the spending categories for elsewhere in Cumberland County than for Carlisle. Given the young age of many participants and their high workload, we will assume conservatively that all non-answers represent zero off-campus spending for those categories. We will therefore divide the sum of all spending reported for the sample as a whole by the largest number of respondents who answered any of the spending questions (209). The resulting averages, reported in Table VIII-11) are conservative, yet indicate a significant net benefit to the area.

**Table VIII-11: Reported Average Weekly Spending By CPYB Students***

| CATEGORY | CARLISLE | ELSEWHERE IN CUMBERLAND COUNTY | TOTAL CUMBERLAND COUNTY |
|---|---|---|---|
| Food | $10.74 | $1.13 | $11.87 |
| Clothing | $3.69 | $5.66 | $9.35 |
| Entertainment | $5.00 | $0.69 | $5.69 |
| Other | $6.82 | $1.15 | $7.97 |
| **Total Budget** | **$26.35** | **$8.59** | **$34.94** |

*These averages assume that non-respondents are spending 0 dollars on that category.

Calculating an estimate for total spending requires taking these weekly averages, multiplying by the 5 weeks the students are in attendance, and then multiplying by the added number of CPYB students attending due to the ballet's use of Dickinson facilities. This sample is heavily weighted toward dormitory residents, with only about 5 school year CPYB students included, so we will assume that these averages are applicable to non-local students only. The few local students surveyed reported spending a total of $3.60 per week in Carlisle, and no other purchases directly relating to ballet class. This number refers to a few food or beverage machine purchases at the warehouse, and can be ignored with little loss of accuracy.

Therefore we assume that CPYB's non-local students spend an average of $26.35 per week in Carlisle and $34.94 per week in Cumberland County. Multiplying these averages by 5 weeks and by 371 non-local students produces an estimate of $48,879 in total consumption spending for Carlisle and $64,814 for Cumberland County.

***Other CPYB Spending***

In addition to CPYB's students, the summer program also draws visiting instructors for the 5 week program and visits from the families and acquaintances. There are an average of 32 visiting instructors in Carlisle for each week of the program, and 46 visiting instructors overall. There are also 8 instructors from the local community involved in the program. Both local and non-local instructors are paid a weekly salary of $960. The visiting

instructors are also granted $125 per week for food, $150 for round trip travel expenses and are provided with on campus housing. Twenty-five residential advisors (RA's) are also hired over the summer to supervise the students living in the dormitories. The RA's receive free room and board and are paid $1,180 in 2001 for the 5 weeks they reside on campus.

Since this employee income is covered by CPYB tuition, counting it as added income would represent a double counting of benefits. Therefore, the salaries of guest instructors and RA's cannot be considered income for the local community. While not included separately in the final tally, the food allowance does represent a source of income for local business, which we can estimate to equal $125 per week x 5 weeks x 32 instructors, or $20,000.

The other primary source of community income involves visits from the families of CPYB students. In our survey we asked how often the students expected their parents or others to visit Carlisle, how many of these visits involved staying overnight, how many nights they would be staying, and how much they would be spending during their visit. CPYB students reported an average of 1.81 visits from parents or others, excluding picking up or dropping off the students. Of these, 0.97 visits involved overnight stays, with an average of 1.37 nights.

The students also reported an average of $58 spent per visit, presumably excluding motel costs. Non-motel spending due to visits during the 5 week session therefore involves a reported $58 per visit times 1.81 visits per student times 371 non-local students, or $38,948. Our visitor survey found an average motel cost of approximately $75 per night. Using this figure, we calculate motel expenses as 0.97 visits per student x 1.37 nights per visit x $75 per night x 371 non-local students, or $36,977. If we hypothesize an average of one more night per student, on average, for dropping off and picking up the students, we would add an

additional $75 x 371, or $27,825, not including meals or other spending. Given the substantial distances traveled, particularly from the Northeast and Southern regions, this additional source of visits seems entirely reasonable. Therefore, parents and other visitors to the CPYB summer program contribute an estimated $103,750 through motel costs and other spending before, during, and after the summer program.

***Dickinson College's Contribution to the CPYB Summer Program's Direct Spending***

We can now compile our estimate of Dickinson College's total contribution to the CPYB summer programs impact on Carlisle and Cumberland County. This total includes added tuition and room and board through the use of Dickinson's facilities, spending by non-local students, per diem spending by visiting CPYB instructors, and the financial impact of visits by parents or others. The figures are presented in Table VIII-12

Without the use of Dickinson College's dormitory and studio facilities, the Central Pennsylvania Youth Ballet's Summer program would be far smaller and less successful than it is. Our results indicate that the Dickinson's contribution to Central Pennsylvania Youth

**Table VIII-12: Dickinson's Contribution to CPYB Direct Spending**

| SPENDING SOURCE | CARLISLE ESTIMATED TOTAL | COUNTY ESTIMATED TOTAL |
|---|---|---|
| Added Tuition, Room, and Board, Local Students | $97,580 | $97,580 |
| Added Tuition, Room, and Board, Non-local Students | $1,248,415 | $1,248,415 |
| Added Student Spending | $48,879 | $64,814 |
| Added Instructor and Visitor Spending | $123,750 | $123,750 |
| Total | $1,518,624 | $1,534,559 |

Ballet summer program's direct economic impact equals $1,518,624 for the Carlisle economy and $1,534,559 for the economy of Cumberland County. Aside from the dollar figures, the use of Dickinson's dormitory and studio space has made it possible for the

Central Pennsylvania Youth Ballet to grow into the nation's largest summer program and one of the most influential schools in the nation.

## Summary and Conclusion

Dickinson is host to three significant summer educational programs, the Dickinson Summer Sessions, the Center for Talented Youth Summer Program, and the Central Pennsylvania Youth Ballet Summer Program. Of the three, Dickinson's own summer college courses are by far the least significant in terms of attendance and economic effects. Overall, the three programs add an estimated $2.5 million to the Carlisle economy and $2.75 million to Cumberland County as a whole. These findings are summarized in Table VIII-13 below.

**Table VIII-13: Summer Program Direct Spending**

| PROGRAM | CARLISLE SPENDING | COUNTY SPENDING |
|---|---|---|
| Dickinson Summer Sessions | $98,334 | $210,303 |
| Center for Talented Youth | $900,801 | $1,028,666 |
| Central Pennsylvania Youth Ballet | $1,518,624 | $1,534,559 |
| Total | $2,517,759 | $2,773,528 |

While significant for many reasons, the total economic effect of these three programs is less than one tenth that of the direct spending occurring during the academic year, which totals approximately $20 million in Carlisle and $34 million for the County. However, the benefits these programs offer the community in terms of activity on campus, a level of diversity among the students which Dickinson cannot hope to match during the school year, and the promotion of Carlisle among young people across the nation is important and entirely positive.

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# Chapter IX: Impact of the Washington Redskins Training Camp*

The Washington Redskins Training Camp has a long history with Dickinson College and the Carlisle Community. For 32 years, from 1963-1994, the Redskin training camp made its home at Dickinson. The Redskins training camp returned to Dickinson and Carlisle in the summer of 2001 after training during the intervening years at Frostburg State University and at Redskins Park in suburban Washington. In the summer of the 2002, the Redskins Training Camp at Dickinson kicked off on July 23rd and ran until August 16th. However the team's stay in Carlisle was somewhat shortened as they traveled to Osaka, Japan from July 31st until August 6th to play in the American Bowl in addition to their normal schedule of preseason games. Therefore the Redskins were in residence during only one weekend of the camp. This trip also precluded a possible scrimmage with another team during the first weeks of camp. Therefore this season's camp has a somewhat lower overall impact than during a typical preseason.

Despite Carlisle's long connection with the Redskins, the economic impact of the Washington Redskins' training camp has not been studied in detail until now. As noted in our introductory chapters to this study, an estimate of direct spending should include spending by employees, purchases by the organization, and any added local spending by fans, who take the role of students in the college's more general impact. Unfortunately the Redskins' public relations staff was not particularly cooperative regarding important figures such as the number of staff members present in Carlisle, the number of media present during an average day, or the Redskins' payment to the College for the use of its dormitory, food service, and athletic facilities. Therefore, while this segment of the study will include

* Brendan Lilly also contributed some introductory information to this chapter.

estimates of these components of the camp's impact, these estimates will have a lower level of reliability than other sections of the study.

On the other hand the most important contribution of the Redskins camp to Carlisle comes from the fans, who travel to Dickinson from outside of Cumberland County at the rate of well over 1,000 per day to attend practices, collect autographs and souvenirs, and visit the Carlisle community. In assessing the impact of Redskins fans, we conducted a detailed spending survey at practices during the first week of camp. A second survey was undertaken during the third week to collect additional information about the residence of those attending practice and the number of practices they attended. We also conducted crowd counts at each Redskins practice. Finally, we conducted a survey of local businesses to ascertain the effect of Redskins fans on individual businesses, and to find patterns in fans' spending which might benefit the business community. In addition to reviewing these findings and estimating the total direct spending produced by the Redskins' training camp, we will also discuss briefly the more intangible benefits of the Redskins' camp for the Carlisle community. As with other aspects of Dickinson's economic impact, we will begin with an overview of attendance at Redskins practices.

***Redskins Attendance***

Accurately estimating the level of fan attendance at training camp can significantly affect the results of the overall economic impact of the team. We conducted a head count beginning at approximately ½ hour after the start of each practice. These counts represent a modest underestimate because it does not include those who came late to practice or left very early. While in Frostburg, economists for the state of Maryland predicted that the number of visiting fans would be just over 35,000 with an estimated impact of $2.9 million for the summer camp. This estimate for Frostburg did include a scrimmage which drew several

thousand fans. However, Frostburg is nearly an hour further away than Carlisle from Washington, D.C. and also has a smaller regional population on which to draw. Given these offsetting differences, our attendance results were expected to be similar to those for Frostburg State. The actual crowd count results are in Table IX-1 below.

**Table IX-1: Redskins Daily Attendance, 2002**

| DAY | PRACTICE | PRACTICE ATTENDANCE | #EST. DAILY ATTENDANCE |
|---|---|---|---|
| July 23rd | 9:30-11:30 AM | 660 | 660 |
| July 23rd | 4:00-5:45 PM | Cancelled | |
| July 24th | 9:30-11:30 AM | 583 | |
| July 24th | 4:00-5:45 PM | 662 | 1,047 |
| July 25th | 9:30-11:30 AM | 807 | |
| July 25th | 4:00-5:45 PM | *277 | 1,001 |
| July 26th | 9:30-11:30 AM | 980 | |
| July 26th | 4:00-5:45 PM | 940 | 1,640 |
| July 27th | 9:30-11:30 AM | **1,950 | |
| July 27th | 2:00-4:00 PM | **5,900 | 5,900 |
| July 28th | 4:00-5:45 PM | 794 | 794 |
| July 29th | 9:30-11:30 AM | 904 | |
| July 29th | 4:00-5:45 PM | 590 | 1,456 |
| July 30th | 9:30-11:30 AM | 728 | 728 |
| Aug. 6th | 9:30-11:30 AM | 738 | |
| Aug. 6th | 4:00-5:45 PM | 683 | 1,218 |
| Aug. 7th | 9:30-11:30 AM | 1,207 | |
| Aug 7th | 4:00-5:45 PM | 1,099 | 1.980 |
| Aug. 8th | 9:30-11:30 AM | 939 | |
| Aug. 8th | 4:00-5:45 PM | *250 | 1,102 |
| Aug. 12th | 4:00-5:45 PM | 448 | 448 |
| Aug 13th | 9:30-11:30 AM | 1,024 | |
| Aug. 13th | 4:00-5:45 PM | 664 | 1,491 |
| Aug. 14th | 9:30-11:30 AM | 951 | |
| Aug. 14th | 4:00-5:45 PM | 662 | 1,417 |
| Aug 15th | 9:30-11:30 AM | Practice cancelled | |
| Aug 15th | 4:00-5:45 PM | 732 | 732 |
| Total | | 25,170 | #21,923 |

* originally unscheduled practice. ** Fan Appreciation Day.
#local attendance plus (non-local morning attendance + .065 x non-local afternoon attendance), with the exception of fan appreciation day, where the afternoon attendance figure is used.

Based on our crowd count, attendance averaged 1,018 per practice. Broken down by type of event, normal weekday practices averaged 803 persons, the two unscheduled practices averaged 264, while the fan appreciation day attendance averaged 3,925 for the two

practices, with approximately 5,900 for the afternoon scrimmage and special events. The total attendance for the training camp was approximately 25,170.

One concern was that these attendance figures would double count those who attended more than one practice per day. When combined with our survey findings for average daily spending, we would over-estimate total spending unless some effort was made to correct this error. Therefore we conducted a second and more limited survey of fans' residence and number of practices attended at an afternoon practice on August 7. A total of 181 people were surveyed at that time. Of these, 7 were from Carlisle, 2 were from elsewhere in Cumberland County, 31 were from elsewhere in Pennsylvania, and the other 141 were primarily from Maryland, Virginia, and the District of Columbia. Combining these figures with the first week survey results produced a total of 479 respondents, of which 406, or 84.8 percent, reside outside of Cumberland County.

All of the local visitors attended only one practice that day. Of the non-local visitors, 113 attended one practice, while 60, or 35 percent of the total non-local visitors surveyed, attended both practices. Assuming that this 35 percent of non-local respondents is a typical percentage, the total number of non-local visitors per day can be assumed to equal all of the morning attendance plus 65 percent of the afternoon attendance. An exception must be made for fan appreciation day, where the morning attendance was less than 35 percent of the afternoon attendance, making this calculation inconsistent. For fan appreciation day we assume that the total attendance equals the afternoon figure of 5,900. This is based on the conservative assumption that all of the A.M. attendees stayed for the afternoon events. The column in Table IX-1 above which lists estimated daily attendance is based on these calculations.

The residence of the fans proved to be somewhat surprising. Based on our first week spending survey and third week residence and practice count, we found that 84.8 percent of those of those attending Redskins training camp were from outside of Cumberland county, while 15.2 percent were from Cumberland County and 5.8 percent were from Carlisle. Most respondents were from Maryland, Virginia, or the District of Columbia. This high percentage of non-locals guarantees that most fan spending associated with the Redskin camp represents a net gain to the Carlisle economy. When these percentages are applied to total attendance estimates, we calculate that total practice attendance included 3,826 Cumberland County residents and 21,344 non-residents. Adjusting for those attending multiple practices per day yields an estimate of 18,286 non-resident visitors to the Redskins training camp. Of the Cumberland County residents attending practice, we estimate that 1,460 are residents of Carlisle and 2,366 are from elsewhere in Cumberland County. These adjusted totals will be used in calculating total direct spending by Redskins fans later in the chapter.

***Fan Spending Survey Results***

To estimate the spending of fans attending the Redskins training camp, surveys were conducted during 4 weekday practices and at the two practices on Fan Appreciation Day. Separate forms were available for local and non-local respondents, though some Cumberland County residents filled out the non-local form. This survey yielded a total of 298 survey responses. Forty nine filled out the local resident survey, while 249 filled out the non-local survey. Each set of survey results will be discussed before our estimate of overall average spending is determined.

Of those completing the local survey, 21 were from the Borough of Carlisle and 28 hailed from nearby townships such as East and West Pennsboro, North and South Middleton, Upper Allen and Silver Spring. Residents from more distant locations within Cumberland

County generally filled out the non-local survey. The majority of respondents were male. When asked how often they would attend the training camp during its 2002 season, 19 responded 2 to 3 times and 10 each said 1, 4 to 5, and 6 or more times. Most local visitors to the camp treated the event as a group or family outing and had 1 to 6 others with them. Nine respondents were alone, while 22 were with 1 other person, 16 were with 2 to 3 others and 2 were with 4 to 6 other guests. The local survey was careful to ask about only added spending specifically due to their attendance at the Redskins camp. As expected, added spending by local residents as a result of their visit to the Redskins training camp was quite modest, with 28 of the 49 respondents spending some additional money on food, 20 buying Redskins souvenirs and 11 spending nothing. Including those who reported no additional spending, the average local attendee spent a reported $18 per day due to their attendance at the Redskins training camp.

The 249 who completed the non-local survey reported much higher spending figures for their visits. Out of town visitors to the camp again were mostly male. Fifteen visitors lived in Cumberland County, though none were from the Carlisle area, and 88 came from the D.C. area. The other 146 visitors hailed mostly from other parts of Pennsylvania, Virginia, and Maryland, but also came from 12 other states and 2 other countries. Out of town visitors also tended to travel in groups with 91 traveling with 1 other person, 90 with 2 to 3 others, 36 with 4 to 8 others, and 2 as part of bus trips. A little over half of the out of town visitors planned on visiting the camp only one time while 93 planned to visit 2 to 3 times, 19 planned to visit 4 to 6 times, and 10 would visit 7 or more times. Fifty nine of the respondents were staying overnight in Carlisle during their visits to the camp for 1 to 8 nights with the average stay lasting 2 nights.

When asked where they would be spending most of their money, 119 said near Dickinson's campus and 91 said in Downtown Carlisle. Thirty-five were also spending money near I-81 and the PA turnpike, 8 in nearby towns, and 34 had no idea where they would be making purchases. The average amount spent by out of town visitors per day in Carlisle on food, souvenirs, auto expenses, entertainment, hotels and other expenses was approximately $118, which is $100 more than the average local resident.

When the non-local survey results are broken down by location, Cumberland County residents reported total spending of $72.78 per person, while those from outside of Cumberland County averaged $122.38 per day. The Cumberland County figure is quite different from the average for the local resident survey. Two reasons for this discrepancy come to mind. First, the local survey asked about only added spending, while the non-local survey asked about total spending. Secondly, those from elsewhere in the county would be more likely to buy meals or fuel in Carlisle as a result of their attendance at practice. One tactic for interpreting these figures for Cumberland County residents filling out the non-local survey is to include the local spending of Cumberland County residents as a net gain for the Carlisle area but not for Cumberland County, since this spending would tend to take place within the county regardless of their decision to visit Carlisle.

***Total Direct Spending by Fans***

Our estimates of total direct spending by Redskins fans are derived by multiplying average daily spending figures by total attendance, correcting for those attending multiple practices. As reported above, non-residents of Cumberland County reported spending an average of $122.38 per day. Multiplying this average by the estimated 18,286 non-local fans attending practice sessions results in total non-local spending of $2,237,841 in the Carlisle area. The added spending by Carlisle area residents totals $18 per fan x 1,460, or $26,280.

Spending by other county residents, which we assume represents a net gain for Carlisle's economy but not for Cumberland County, is estimated to equal $72.78 per day x 2,366 residents, or $172,197. Adding these three very unequal figures results in added direct spending for Carlisle of $2,436,318. Subtracting the $172,197 spent in Carlisle by those residing elsewhere in the County produces a net gain in direct spending for Cumberland County of $2,264,121.

***Redskins Organization and Employee Spending***

In addition to the spending by Redskins fans, the Redskins organization has other sources of direct spending in Carlisle such as fees paid to the school for the use of dorms, food service, and athletic facilities, and spending by Redskins employees and media representatives. Unfortunately, the value of the contract between the College and the team has not been made public. However, while in Frostburg the Redskins paid Frostburg State University $300,000 per annum for food, lodging and use of their facilities. While it is likely that the dollar value of the current contract is higher than this figure from Frostburg, we will use it as a rough approximation.

Another way in which the team directly impacts the Carlisle economy is in spending by Redskins employees and representatives of the media. For the 2002 training camp a total of 84 players plus 18 members of the coaching staff reported to Carlisle. Approximately 50 additional staff members work in positions such as media relations, transportation and general services, and crowd control. The Redskins camp also brings significant media attention to the area, as supported by the approximately 95 press passes issued for the opening day of camp and roughly 30 media representatives who stay in Carlisle for the entire camp.

A relatively small sample of 15 Redskins staff and media employees completed a spending survey similar to that of the non-local fans. While this sample is far smaller than we would prefer, a rough estimate of staff and media spending can be derived from these figures. None of the respondents were coaches or players, but from conversations with local individuals and business owners, we have the impression that coaches spending is somewhat similar to that of the media, while players seldom get off campus and are likely to spend a smaller amount, which could be similar to staff spending despite a significant difference in income.

The media responding to the survey reported average daily expenditures of $52.22 for food, $5.56 for souvenirs and related items, $3.33 for entertainment, $2.33 for automobile expenses, $5.22 for other spending, and a total daily expenditure of $68.67. They also spent an average of $56.29 on lodging, for a total of $124.96 per day in total expenses. Redskins staff reported average spending of $10 on food, $6.67 on entertainment, and zero on all other expenditures, for a total of $16.67 per day. For our estimate of players' spending we will add $2.33 to this total for auto expenses for an average of $19 per day.

Media representatives varied in the length of time they reported staying in Carlisle. Twenty two percent planned on staying in Carlisle for 4 to 6 days, one third planned on staying from 7 to 14 days, and 44 percent were staying for the entire camp. Based on the 95 media passes issued for the first day of camp, these values translate into
22 media staying an average of about 5 days, 31 staying for an average of 11 days, and 42 staying for the entire 21 days. Multiplying these numbers of media by their average stay gives us a figure of 1,328 total days spent in Carlisle by all members of the media. Multiplying this value by average daily spending produces an estimate of the media's total direct spending of $124.96 x 1,328, or $165,947.

For the Redskins staff, all reported staying for the full time of the camp. As noted earlier, Redskins employees included 84 players, 18 coaches, and approximately 50 other staff. We estimate that players' daily spending averages $19, coaches average $124.96 (equal to that of the media) and other staff members average $16.67. Multiplying these averages by the relevant number of employees and by 21 days produces total spending by all Redskins employees of $98,249. Combining our estimates for Redskins payments to the college and media and staff spending produces total direct spending of $564,196. Adding this figure to those from the fan surveys produces total direct spending estimates of $3,000,514 for Carlisle and $2,828,317 for Cumberland County. These values are twice those of the next largest summer program and represent a significant net gain for the local economy.

***Multiplier Effects and Total Economic Impact***

As noted in Chapter II, a significant aspect of any institution's economic impact comes from the income that is earned indirectly from subsequent rounds of added spending by those who receive income directly from the institution. For example, a restaurant's workers, owners, and suppliers who receive added income from spending generated by the Redskins camp will in turn spend some of that income locally, providing additional income. Those receiving this indirect spending will do the same thing in subsequent rounds. The cumulative effect of this process is often referred to as the multiplier effect. While we have generally deferred our consideration of the multiplier effect of the College until the end of this report, the unusual interest in the Redskins camp, as well as some differences in the camp's multiplier effect, caused us to include an independent multiplier estimate in this chapter.

As noted above, the primary categories of local spending by visitors are food and lodging, with lesser amounts spent on automobile expenses and souvenirs. Based on the RIMS-II model from the U.S. Department of Commerce, the multiplier value for eating and drinking places in Cumberland County is 1.53, while that for lodging is 1.49. Others are slightly less in value. Therefore an overall multiplier figure of 1.5 for Cumberland County is a very reasonable approximation. As with the more general analysis of Dickinson College later in the paper, the multiplier for the Carlisle area will be less because local residents who receive the direct spending from the Redskins camp are likely to do a significant amount of their spending outside of the immediate Carlisle area. As explained in the next chapter, the estimated value of the multiplier effect for Carlisle is 1.344.

The total effect of the Redskins camp on Carlisle and Cumberland County can then be found by multiplying the total direct spending estimates by the relevant multiplier value. For Carlisle this leads to a total economic impact of 1.344 times $3,000,514, or $4,032,691, for Carlisle and 1.5 times $2,828,317, or $4,242,476, for Cumberland County.

***Impact on Local Businesses***

While in town, football fans spend money on a variety of items ranging from Redskin merchandise to frozen custard. The restaurant industry in particular benefits from the increased tourism. In the Frostburg survey more than a half a million dollars was generated by fans eating at local establishments. Businesses near Biddle Field excitedly describe the impact of having the Redskins in Carlisle. "I've had a tremendous increase," says Kimberly Molloy, owner of Kimberly's café and Creamery. She continues, saying "some regulars actually stay away because of the craziness." Molloy feels that training camp "brings in business...at a time when summer vacations could make the customer base unpredictable." Belinda Peters, who has resided in Carlisle for more than thirty years comments, "shopping

malls, including Carlisle Plaza, are filled with fans." However, this benefit is decidedly uneven, with some local establishments reporting little or no positive effect on revenue or profits, while others report substantial percentage increases in customers, revenue, and profits.

We conducted an informal survey of 38 local businesses which asked about their estimates of the effect of the Redskins camp on customers, revenue, and profits, as well as their view of the Redskins camp's effect on the Carlisle economy and the Carlisle community as a whole. Businesses were asked to volunteer their names, but were promised anonymity if they did not do so. The majority of those surveyed were restaurants, along with some hotels, bars, gasoline stations, and others. Some respondents provided general guesses about the Redskins' effect on their business, while others provided more detailed financial estimates. The results of this survey revealed some interesting patterns regarding the distribution of Redskins fans' spending. The reported percentage changes in customers, revenue and profits differed widely across local businesses, even among those businesses whose responses were detailed and probably based on hard figures. This distribution of economic effects will be discussed by type of business, location, and also by another dimension.

Restaurants reported mean increases of 15.8 percent in revenue, 13.3 percent in customer flow, and 15.3 percent in profits. The two taverns we surveyed reported average increases of 27.5 percent in revenue, 40 percent in customers, and 27.5 percent in profits. Service stations average increases are quite high, but are also atypical of our expected results for service stations as a whole. One of the 4 stations surveyed is located very near the field, and also rented parking spaces for fan appreciation day. This firm reported 100 percent increases in all categories, which may be roughly accurate but atypical. Two others reported 10 to 15 percent increases and one reported zero increases in revenue and profits and a 10

percent increase in customers (asking directions). These ranges are more likely to be typical of the camp's effect on service stations. Hotels and motels reported modest effects, in part because their normal business during the first week of training camp would have been near capacity due to a local car show. Their reported increases were 9.38 percent for revenue, 7.5 percent for customers, and 7.5 percent for profits.

We also analyzed mean increases by location, with predictable results. The greatest impact on revenue, customers, and profits occurred among firms near campus, followed by downtown, the Plaza Mall/Giant areas of east Carlisle, south Carlisle and the MJ Mall area (prior to the opening of Wal-Mart), and the area around the turnpike. Firms near Dickinson reported average increases of 26.5 percent in revenue, 26.67 percent in customers, and 51.5 percent in profits. Downtown Carlisle firms reported increases of 19.6 percent in revenue 16.5 percent in customers and 24 percent in profits. Other areas were correspondingly less.

The third dimension of reported effects concerns the age of the establishments. Among restaurants, older and more established firms reported far higher figures than newer establishments. Those restaurants known for liquor distribution did particularly well, while Carlisle's newer establishments known for ethnic cuisine reported changes ranging from a plus 10 percent to minus 6 percent during that week. Among the older firms which reported revenue increases of 25 percent or more were Rillo's, Fay's Country Kitchen, and the Gingerbread Man. Others with enthusiastic responses but less precise figures included Back Door Café and the Hamilton Restaurant. Among those reporting zero or negative changes were Piatto and Amy's Thai Cuisine. Modest double digit increases were reported by Market Cross, Mandy's, and the California Café, among others. Fast food and other chain restaurants did not provide information due to company policy. We cannot speculate on the

Redskins camp's dollar impact on these establishments, but hypothesize that establishments with familiar names would tend to draw more people, all else equal.

One possible explanation for this spending pattern at local restaurants is that a large number of Redskins fans rely on word of mouth or tradition in selecting their eateries of choice, in addition to location. It is also clear that local restaurants, including those who currently benefit most from the training camp, may be missing a marketing opportunity by failing to provide an information table or posters with information about local restaurants.

***Unquantifiable Effects***

Major cities spend millions attracting professional sports teams in part because of the status associated with hosting a team. Sports help put cities on the map and bring national recognition and media coverage. In the summer of 2001 when the Redskins first announced their return, Dickinson College as well as the Borough of Carlisle were mentioned in numerous media outlets because they played host to the Redskin's training camp. Having the college and town mentioned on nationwide television stations such as CNN, ESPN and the networks, lets the country know about the peaceful Pennsylvania town of Carlisle. In Washington there were live reports from Carlisle on every local network affiliate sports program. The *Washington Post* published a number of articles describing former players' fond memories of the town as well as profiles on the College and town. Press coverage has almost certainly brought an increased number of fans to Carlisle as well as visitors to the college from the D.C. area. In addition to increased visitors, this publicity can help put the town in the minds of business leaders. If a corporation is looking to open a new factory they might add Carlisle to a list of possible locations simply because they are familiar with it from the news.

***Conclusion***

The Washington Redskins' training camp in Carlisle represents the largest source of revenue for Carlisle and Cumberland County of any of Dickinson's various summer programs, with direct spending totaling an estimated $3 million for Carlisle and $2.8 million for Cumberland County as a whole. The smaller figure for Cumberland county arises because some visiting Carlisle from elsewhere in Cumberland County are spending money here that would otherwise be spent closer to their homes. When one adds the estimated effect of indirect spending to these direct spending figures, the economic impact of the Redskins training camp totals $4,032,691 for Carlisle and $4,242,476, for Cumberland County as a whole. This relatively high total impact arises primarily from the large numbers of fans who come to Carlisle from elsewhere in Pennsylvania, Maryland, Virginia and the District of Columbia.

Our survey of local businesses was helpful in identifying locational and other patterns regarding Redskins' fans spending. We found that businesses located in downtown Carlisle and near campus received the greatest benefits, and more importantly that newer establishments generally had far smaller benefits than older establishments. We recommend that the Downtown Carlisle Association or similar organizations provide information at the training site.

Finally, at this time there is a strong possibility that the Redskins will not train in Carlisle next year. Local businesses were nearly unanimous in their hope that the Redskins retain their connection with Carlisle. Many fans volunteered the same sentiment, regardless of their residence. However, the impact of the Redskins' training camp is only 4 percent of the College's total impact on Cumberland County and approximately 6.7 percent of its impact on Carlisle. Therefore the Washington Redskins camp represents a small but positive

part of the College's contribution to the economy. On the other hand, its public relations contribution to the community is far greater than its economic effects, and the fact that the camp occurs during July and August, otherwise quiet months at the college, adds to its appeal.

## Sources


Cravaritis, Hackett, Schaefer, Shober, and Varesco, "Economic Impact of the Washington Redskins Training Camp", (Frostburg, MD: Department of Business Administration, Frostburg State University, 1996).

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# Chapter X: Impact on Local Government*

Dickinson College affects the finances of Cumberland County, the borough of Carlisle, and Carlisle Area School District both positively and negatively. Positive factors include added tax revenue from the employment and spending of Dickinson employees, tax payments on non-exempt property, and the college's financial contributions in lieu of taxes. Negative budget factors are the added spending on services for Dickinson employees and their families and lost income from tax exempt property. Through an expenditure survey of Dickinson College's employees and additional local research we have arrived at estimates of Dickinson College's impact on spending and tax revenue for the Carlisle borough, the Carlisle Area School District, and Cumberland County.

Our analysis proceeds in four steps. We first discuss the added tax revenue received by local government from Dickinson tax payments and the taxes paid by employees of the College. We then estimate the tax revenue lost by local governments because of Dickinson's tax-exempt property. We then estimate the added spending Dickinson imposes on local government, and then provide a set of figures for the overall impact of Dickinson on the borough of Carlisle, the Carlisle Area School District, and Cumberland County.

## Added Tax Revenue

Dickinson College employees pay taxes to the Carlisle borough, Carlisle Area School District, and Cumberland County. These taxes include property taxes, the employment tax, and the so-called "nuisance taxes", the per-capita tax and the employee privilege tax. Each of these revenue sources will be discussed in turn.

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* Other students contributing to this chapter were Shanna Wiest, George Gonzalez, Larry Wagner, and Dan Zito.

The most significant source of revenue among these is the local property tax. Property taxes are determined by multiplying the assessed value of the property times a tax rate in mills (1/10 of a cent) per dollar of assessed value. The current millage rates on property are 0.002149 for Cumberland County, 0.0026 for the Carlisle Borough, and 0.01025 for the Carlisle Area School District. It is noteworthy that the County and the borough together raise less than 1/2 the amount raised by the school district. The college owns some taxable property, and also makes voluntary payments in lieu of property taxes. College employees also pay property taxes.

***Employee Property Taxes***

The college employs a total 776 employees with 343 support staff, 234 faculty, 28 academic professionals, and 171 administrators. Of these, 274 Support staff, 162 administrators, 172 faculty, and 26 academic professionals are full time employees. A survey was sent to all the employees of Dickinson College, and 175 employees responded. This is approximately 22.5 percent of the college's employees. Of the employees who did respond, 42.5 percent stated they lived in the Borough of Carlisle. According to the Human Resources Department of Dickinson College, 473 of the 776 employees actually live in the Borough of Carlisle, which is approximately 61 percent of the total. According to our survey, an additional 14 percent live in the Carlisle Area School District but not in the borough. Therefore we estimate that 75 percent of Dickinson's employees, or 582, live in the school district. Regarding county residence, according to our survey .89 percent of the respondents, or an estimated 691, live in Cumberland County. Others reside primarily in Dauphin, York, Adams, Franklin, and Perry Counties. These totals will be used in our calculations.

Those employees who live in the borough and are homeowners are subject to the same property tax rates as Dickinson College. According to the survey response, 69 percent

of the employees are homeowners. However, home ownership is significantly lower in the borough. We found that 51.4 percent of employees living in the borough and 62 percent living in the school district were homeowners. Assuming these percentages are accurate, our estimate for total homeownership in the borough among Dickinson employees is 0.514 x 473 = 243. Similarly, our estimate for homeowners in the school district is .62 x 582, or 361. For the county, we estimate 691 x .69, or 477 homeowners.

Our original strategy for estimating added tax revenue was to calculate total figures directly from the average responses to our survey. However, we found that a large percentage of the respondents did not report figures for property tax payments to the borough and the school district in accurate proportions. Many respondents guessed that payments to the borough were equal to or greater than those to the schools, though the district's tax rate is four times higher than that of the borough. Therefore we had to recalculate estimated payments to the schools, borough and county through a combination of total property tax payments reported in the survey and the actual tax rates for each governmental body.

The first step in this estimate was to check the total reported tax payments to see if those reporting reasonably accurate proportions of taxes paid also reported different totals. To test for the accuracy of total property tax payments we calculated a dummy variable which took the value of one if the employee's reported ratio of school to borough tax payments was reasonably accurate, and zero otherwise. We found that the means for total property tax payments between the accurate and inaccurate responses were not significantly different.

Therefore, to calculate average property tax payments we took the average of the total reported property tax payments and divided on the basis of the tax rates. Of the total property tax, 14 percent goes to the county, 17 percent goes to the Carlisle Borough, and 68

percent goes to the School District. The average total property tax is $2,262.45. Therefore, the borough will receive a total of $2,262.45 x .17 x 243 = $93,462 in tax revenue from Dickinson employee homeowners. The Carlisle Area School District will receive a total of $2,262.45 x .68 x 361 = $555,386 in added tax revenue. The total amount of added property taxes paid to the county is $2,262.45 x .14 x 477 = $151,086. There are two offsetting biases in these estimates. On one hand these estimates are conservative because we are not taking into account the added value of rental property, and the resultant added tax revenue from rental property created directly or indirectly by the College employees and students. On the other hand it assumes that part time employees are also added employees who would not otherwise be residents of the area.

***College Property Tax and Related Payments***

The college's taxable property as of January 2002, has a total assessed value of $10,463,200 (See Appendix A). Using the same millage rates as above, the county received 0.002149 x $10,463,200, or $22,485.42 from the college's taxable property. The borough received .02266 x $10,463,200, or $27,832.11, and the Carlisle Area School District received .01025 x $10,463,200, or $107, 565.33. Using the current millage rates, the total tax revenue from Dickinson's taxable property is $157,565.33. The numbers from our current research are similar to the numbers reported in President Durden's Annual Report to the Community in October 2001. In his report, President Durden stated that in 2000 the college paid $150, 092 in real estate taxes to Cumberland County, Carlisle Borough, the Carlisle Area School District, and others plus a $45,000 payment in lieu of taxes to the Borough of Carlisle. The college's payment of real estate taxes in 2000 totals $195,092.

Combining employee and college property tax payments produces total added property tax revenue of $596,924.81 + $107, 565.33, or $704,490.14 for the Carlisle Area

School District, $101,923.37 + $27,832.11 + $45,000, or $174,755.48 for the borough, and $164,706.36 + $22,485.42, or $241,330.56 for the county. These numbers represent gross benefits to local governments, and will be compared to other benefits and costs later in the chapter.

***Earned Income Tax Revenue***

Another source of revenue for the school district and the borough is the earned income tax. The earned income tax rate equals 1 percent of gross earnings and is split equally between the school district and the borough. The average household income for those living in the borough was reported to be $67,568.88. During this year of declining stock markets, this figure may be a reasonably accurate estimate of earned income. However, because this figure will include some investment and savings income, it is likely to be slightly overestimated. To find the revenue to the school district and borough, we multiply this average household income figure by the number of employee households and the one percent tax rate, $67,568.88 x 776 x .01 = $524,335. The school district and borough each receive half of this total, or $262,167.

***Occupation Tax Revenue***

The occupation tax is a major contributor to Carlisle Area School District's budget. The school district charges 89 percent of the State's assessed value for each occupation. The assessed values for various occupations are $700 for full and associate professors, $500 for administrators, instructors, and assistant professors, and $300 for service support workers and buildings and grounds employees. Part time workers pay $100 regardless of occupation.

According to the Human Resource Services office, Dickinson's full time employees include 274 support staff, 172 faculty, 162 administrators, and 26 academic professionals, for a total of 634. Part-time employees include 69 support staff, 62 faculty, 9 administrators, and

2 academic professionals for a total of 142. According to our survey 63 percent of administrators, 69 percent of faculty, 64 percent of academic professionals, and 46 percent of support staff live in the Carlisle Area School District, and 48 percent of administrators, 55 percent of faculty, 64 percent of academic professionals, and 26 percent of support staff live in the Carlisle Borough. Among the full-time faculty, 56 percent are tenured and subject to the higher occupation tax for professors.

In addition to employees, other members of employees household are also likely to hold full and/or part time jobs. Based on the 174 survey responses, other members of employee's households hold approximately 102 full time jobs, of which 83 are in the Carlisle area, 15 elsewhere in Cumberland County, and 4 outside of Cumberland County. Respondents also reported 84 part time jobs in Carlisle, and 9 each elsewhere in the County and outside of the County for a total of 102. According to the survey results, 57 percent of respondents live in the Carlisle Area School District. Therefore, we can assume that 57 percent of these additional employees also reside within the school district. Assuming an average occupation tax of $500 for these other full-time employees, these workers add an estimated 102 x .57 x $500 x .89, or $25,862. For the part-time workers, the estimated occupation tax revenue is 102 x. .57 x $100 x. .89, or $4,651.

Total estimated occupation tax revenue for the Carlisle Area School District from Dickinson employees and their families is summarized in Table X-1.

**Table X-1: Occupation Tax Revenue, School District**

| OCCUPATION CATEGORY | NUMBER IN DISTRICT | TOTAL TAX |
|---|---|---|
| Administration (full time) | 102 | $45,390 |
| Tenured Faculty (full time) | 67 | $41,741 |
| Non-Tenured Faculty (full-time) | 52 | $23,140 |
| Academic Professional (full time) | 17 | $7,565 |
| Support Staff (full time) | 126 | $33,642 |
| Part Time College Employees | 81 | $7,204 |
| Other Full Time Employees | 58 | $25,862 |
| Other Part Time Employees | 58 | $4,651 |
| Total | 561 | $255,155 |

*This tax is .89 times the state's assessed value.

***Nuisance Taxes***

Local government also receives a small amount of revenue from so-called "nuisance taxes". These nuisance taxes are so labeled because they provide very small tax payments with little net revenue potential. These taxes are the occupational privilege tax and the per capita tax. The occupational privilege tax is a $10 per year tax charged to each employee working in the borough regardless of where the employee lives. This tax is divided equally between the borough and the school district. Since all Dickinson employees pay this fee the total tax revenue would be $10 x 776, or $7,760. The school district and borough each receive $3,880. The borough also receives a per capita tax of $5 for each person over 18 years old. Dickinson's contribution can be found by taking the number of borough households times the average family size minus the number of school age children. (2.15-.26 = 1.89) This estimate is $5 x 473 x 1.89, or $4,470. This estimate may include a few pre-school children as taxpayers, another minor overestimate.

## Foregone Tax Revenue

It is the issue of foregone taxes that produces most of the controversy concerning the college's role in the community. Moreover, it is in this area that economic impact studies

related to higher education produce their most various and, in some cases, most dubious results. Previous studies have utilized at least three different approaches to estimating foregone tax revenue for college property: (1) ignoring the issue, (2) estimates based on current assessed value of college property, and (3) estimates based on average local property values.

Surprisingly, ignoring foregone taxes is a relatively common approach. Some studies mention that no property tax was paid, but do not estimate the tax revenue that would be paid in the absence of the college (Sann, Simmons). Others did not discuss the impact of the school on the public sector (Posey). Both methods guarantee that no negative net effect of colleges and universities on the local public sector would be reported, contrary to some evidence and most public opinion.

On the other hand, those who use the current market or assessed value of college property to estimate lost tax revenue (Lai) are ignoring the likelihood that, in the absence of the college, the campus area would have developed quite differently, with less intensive use and almost certainly lower property value. As the following estimates will show, the current assessed value of the campus is over twice as great as the average value of an equal amount of borough property. Therefore, while current assessed value is of interest, it does not provide an accurate measure of the college's true effect on tax revenue. However, in the interest of completeness, an estimate of foregone tax revenue based on current assessed value will be included in the following section.

The third method, also used in some cases (Miklausen), is to estimate a figure for lost revenue based on average land value in the borough. The logic of this approach is that in the absence of the college, as well as any unique physical features or transportation access, the campus area would have developed in a manner typical of Carlisle as a whole. While this

approach is logically superior to the others, it suffers from being rather hypothetical in that the college and borough have co-existed for over two centuries. This study will provide estimates of lost tax revenue based on average borough property value and on the current assessed value of college property.

As stated above, the average value approach estimates lost tax revenue on the assumption that in the absence of the college, campus property would have an assessed value equal to the borough average. This approach requires one to calculate the ratio of campus property to the area of the borough, then multiply total property tax revenue by the resulting fraction. Dickinson College currently consists of 104 acres. The main campus and other housing covers 86 acres, while the other 18 are used for recreation. Dickinson College makes up .0295 percent of the 550 square miles of Cumberland County, which has annual property tax revenue of approximately $25,000,000. The annual property tax revenue loss to the county is .000295 x $25,000,000, or $73,750. Dickinson College also lies entirely within the Borough of Carlisle, which totals approximately 4.7 square miles or 3,008 acres. Therefore, Dickinson College-owned property makes up 3.46 percent (104/3,008) of the Borough. The annual property tax revenue for the borough is approximately $2,300,000. The foregone tax revenue to the Borough of Carlisle is .0346 x $2,300,000, or $79,580. The estimated foregone tax revenue to the Carlisle School District can be calculated using the district and borough millage rates and totals (.01025/. 00266) x $79,580, or $ 306,652.

The second approach to calculating foregone tax revenue is from the current assessed value of the tax-exempt property owned by the college. As noted in the introduction to this chapter, this method addresses a somewhat different issue than the previous approach. While the average value approach attempts to estimate how tax revenue would differ if Dickinson College did not exist, this approach estimates how tax revenue would differ if Dickinson's

educational property was not tax exempt. The average value approach answers the basic economic impact question, while the second addresses a related policy question.

Currently, Dickinson College owns 51 tax-exempt properties with a total assessed value of $61,970,370 ( See Appendix II). We assume that all of this property lies within the borough. Foregone tax revenue for each of the governmental units can be estimated easily by multiplying the total assessed value of the tax exempt property by the relevant millage rate for that body. Cumberland County's millage rate is .002149, therefore its foregone revenue equals .002149 x $61,970,370, or $133,174. At the borough's tax rate of .00266, the foregone tax revenue equals .00266 x $61,970,370, or $164,841. Finally, the foregone revenue for the Carlisle school district, with its millage rate of .01025, equals .01025 x $61,970,370, or $635,196.

The tax exemption granted to Dickinson College obviously reduces the revenue to Cumberland County, the Borough of Carlisle and the Carlisle School District. The two approaches taken, however, produce varying results regarding the impact of this lost revenue. The average property value approach estimates lost revenue to the county as $73,750 while under the assessed value approach it is $133,174. With regard to the borough, the range of loss is $79,580 using average value and $164,841 using assessed value. For the school district, the foregone property tax estimates are $306,652 using the average value method and $635,196 using the assessed value method. In all cases the current assessed value numbers are roughly twice as large as those calculated using the average value method.

## Added Expenditures

The borough and the school district provide services to Dickinson students as well as Dickinson College employees and their families. The primary services provided are education, police and fire protection, and street lighting and maintenance. Estimates of these

costs cannot be done directly. While Dickinson has its own campus police, local government provides services such as education for resident employee children, fire protection, and street lighting and maintenance. We will first estimate the cost of employee children to the school district and then estimate added expenditures for the Carlisle Borough and Cumberland County.

As discussed earlier, we estimate that 75 percent of Dickinson's employees, or 582, live in the school district. Of the 174 employees who participated in the survey, 98 reside in the Carlisle Area School District. Of these, 23 families had a total of 34 school age children. On average, therefore, there are .347 school age children per household in the school district. Multiplying this number by the estimated total number of households in the school district, we find that approximately 202 school age children of Dickinson employees attend Carlisle schools. By searching the Carlisle Area School District web site, we were able to conclude that approximately 4900 students attend Carlisle area schools. From the district's 2001-2002 budget, we find that the projected total expenses for the 2001-2002 school year equal $39,916,369. We therefore estimated the cost per student to equal $39,916,369 / 4900, or $8,146.[4] However, a significant percentage of this cost is covered by state and federal subsidies. Projected local tax revenue for 2001-2002 totals $23,876,511. Thus the local payment per pupil equals $4,873. Furthermore, some of these expenditures represent fixed costs which would not be affected by a marginal increase in the number of students. These include administrative costs, debt payments, and utilities and maintenance. These items cost a projected $8,692,132 for the 2001-2002 fiscal year. Subtracting these costs from total expenses produces total projected variable costs of $31,224,237, or 78 percent of total

[4]The state of Pennsylvania has published figures for the 1999-2000 school year and report total spending per pupil of $7,854, and local spending of $4,723, so our revenue estimates per pupil for 2001-2002 are very reasonable. (Pennsylvania Department of Education)

expenditures. If these variable costs are proportionately covered by local spending, local expenditure for variable costs amounts to .78 x $23,876,511, or $18,623,679 total. This amounts to $3,801 of local spending per pupil. Assuming all of the estimated 202 resident school age children attend Carlisle public schools, the added total expenditure for the district from these students equals 202 x $3,801, or $767,802.

The added cost of fire and emergency service protection can be calculated by calculating the ratio of the local population of the Dickinson community to the total population of the borough, then multiplying the borough's total fire protection budget by the resultant fraction. The local Dickinson College student body totaled 1906 students for the 2001-2002 school year. Dickinson also employs 776 people, of whom 473 live in the Carlisle borough. The total Carlisle population is 17,970. The 2,379 Dickinson employees and students residing in the borough therefore comprise 13.2 percent of the borough population. The Carlisle Fire Department budget for 2001-2002 was $686,082. Dickinson therefore adds an estimated .132 x $686,082, or $90,563, to the fire budget.

The added police protection and street maintenance expenses created by the College are somewhat more problematic. Street lighting and maintenance would probably be equal to or greater than current levels in the absence of the College, due to the interruption of the street grid by the western portion of the campus. Students assure me that revenue from student parking fines is probably sufficient to cover any added street lighting and maintenance.

Because Dickinson has its own security force, we considered were tempted to assume that the college adds nothing to borough police expenses. However, in 1995 the borough finance director suggested that, despite the college's separate security force, borough police were called to the college neighborhood fairly often. The borough has separate budgets for

police administration, patrol, and investigations. Administrative costs are unlikely to be significantly affected by the existence of the college. The 2001 patrol and investigations budgets totaled $1,683,990. If 13 percent of these activities are campus-related, the cost would be $218,919.

Cumberland County provides a range of services including the criminal justice system, the library system, the county road system, and a set of social and economic services. Lacking any detailed information about the use of county services by members of the Dickinson community, we will assume that Dickinson students and employees are typical of the county population as a whole, and add an average amount to the variable cost of county services. The total County budget for the 2001-2002 fiscal year is $38,319499. Subtracting building and equipment maintenance, general government (administration) and payments on principal relating to debt service, variable costs for the county total $24,886,719. According to the 2000 census, the total population of the county equals 213,674 people. Average variable county expenses therefore equal $24,886,719 / 213,674, or $116.47 per person. According to the results of the employee survey 89 percent of Dickinson's employees, or and estimated 691, reside in Cumberland County.

Because it seems unlikely that students will fully avail themselves of County services, we will make an adjustment in the student figures. According to the Safety and Security office, approximately 1,175 automobiles are registered to students during the school year. These students are more likely than others to use county roads and perhaps other facilities. Adding the 1,175 students with cars to the 691 resident employees produces 1,866 added county residents. At $153.20 per person, the added variable costs to the county from the Dickinson community would be $116.47 x 1,866, or $217,334. Table X-2 summarizes the net impact of the college on each local jurisdiction. An interesting aspect of these

findings is that the net impact of the College on local government is mixed, rather than negative. In particular, the average value method (our recommended approach for economic impact estimates) yields small but positive net values for the borough and the school district.

**Table X-2: Dickinson's Impact on Local Government**

| ADDED TAX REVENUE | BOROUGH | SCHOOL DISTRICT | COUNTY |
|---|---|---|---|
| Property tax paid: College | $27,832 | $107,565 | $22,485 |
| Property tax paid: Employees | $93,462 | $555,386 | $151,086 |
| Earned Income Tax | $262,167 | $262,167 | 0 |
| Occupation Tax | 0 | $255,155 | 0 |
| Nuisance Taxes | $8,350 | $3,880 | 0 |
| Payment in Lieu of Taxes | $45,000 | 0 | 0 |
| Total Added Tax Revenue | $436,811 | $1,184,153 | $173,571 |
| **TAX REVENUE FOREGONE:** | | | |
| Average Value Method | -$79,580 | -$306,652 | -$73,750 |
| Assessed Value Method | -$164,841 | -$635,196 | -$133,174 |
| **NET TAXES PAID:** | | | |
| Average Value Method | $357,231 | $898,925 | $113,441 |
| Assessed Value Method | $271,970 | $570,381 | $54,017 |
| **ADDED EXPENSES:** | $309,482 | $767,802 | $217,334 |
| **NET IMPACT (total dollars)** | | | |
| Average Value Method | $47,749 | $131,123 | -$103,893 |
| Assessed Value Method | -$37,512 | -$197,421 | -$163,317 |
| **NET IMPACT (percent of budget):** | | | |
| Average Value Method | 0.61% | 0.34% | -0.27% |
| Assessed Value Method | -0.48% | -0.51% | -0.43% |

## Concluding Remarks

It is useful to recall that this portion of the study includes only the direct effect of the college on tax revenues, which is more negative than indirect or multiplier effects and ignores certain revenue sources. The omission of tax revenue from rental property, commercial property, the increased value of other residential property, and indirect income and employment taxes indicates a downward bias in these results. However, some rough calculations indicated that including these effects would not bring these estimates figures into a positive range.[5]

[5]Some rough estimates (or guesswork) suggested that indirect revenue from the earned income tax, the occupation tax, and the property tax would be roughly $75,000 for the borough and $163,000 for the school district. Added spending would counteract the majority of this revenue.

Another interesting point is that the college has a much larger net impact on the school district than on the borough. This occurs in part because the college utilizes proportionately more educational services. Also, the school district's much higher property tax rate leads to much higher foregone tax revenue. Finally, the college does not make a cash payment in lieu of taxes to the school district, although it does make significant in-kind donations such as student and faculty volunteers and donated equipment.

Current policy discussions concerning this issue have concentrated on exploring possible increases in portion of the college's property which is taxable. Another approach, which was actively considered in the 1980's, would be to reform the state's tax structure so as to de-emphasize property taxes and place greater emphasis on income or consumption-related taxes. Any significant changes based on either approach will require action at higher levels of government. Local efforts to increase tax revenue from the college are likely to be limited to a few properties whose direct educational role may be questioned, and are unlikely to significantly modify the college's impact on local government finances.

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# Chapter XI: Dickinson's Total Impact on Carlisle and Cumberland County

In this chapter we compile the final estimate for the total impact of Dickinson College on Carlisle and Cumberland County. This process involves reviewing and adding the employment income of the College and the direct spending from the various programs and constituencies which have been studied as part of this project. The multiplier effect of this direct spending on Cumberland County will then be discussed, and a multiplier value will be estimated for the Carlisle area. Final figures for Dickinson College's impact on local and county income and employment will then be presented and checked against alternative estimates attained through more basic methods.

***Direct Spending and Total Direct Income***

This section reviews the various sources of direct spending, which include employee income and spending, college purchases, academic year student spending, and the impact of visitors to the college. As noted in Chapter V, we estimate that Dickinson College employment adds $21,167,000 to total income in the Carlisle borough and $32,166,000 to total income in Cumberland County. In addition to this income the purchases of goods and services by the college and its employees, students, and visitors create income for others in the community. Additional economic impact comes from various summer programs, including the Central Pennsylvania Youth Ballet summer program, the Center for Talented Youth programs, Dickinson's own summer classes, and the Washington Redskins training camp. Finally, the college provides charitable and cultural services to the Carlisle community, and also affects local government both positively and negatively.

Our findings regarding total direct spending are summarized in table XI-1 below.

**Table XI-1: Total Direct Spending in the Carlisle Area and Cumberland County**

| CATEGORY | CARLISLE SPENDING | TOTAL COUNTY SPENDING |
|---|---|---|
| College Purchases | $9,738,636 | $12,676,291 |
| Employee Spending | $7,725,320 | $15,350,535 |
| Student Spending | $3,200,136 | $6,597,848 |
| Visitor Spending | $865,180 | $865,180 |
| Summer School Student Spending | $98,334 | $210,303 |
| CPYB Spending | $1,518,624 | $1,534,559 |
| CTY Spending | $900,801 | $1,028,666 |
| Redskin Camp Spending | $3,000,514 | $2,828,317 |
| Government Budget | $178,872 | $74,949 |
| Total Spending | $27,226,417 | $41,166,678 |

These figures indicate that the clear majority of direct spending comes from college purchases and employee spending. These two factors represent 64 percent of College-related spending in Carlisle and 68 percent of total spending in Cumberland County. The various summer programs provide about 20 percent of the total direct spending in Carlisle and about 13.7 percent of total direct spending for the County. We conclude that Dickinson College's main mission, higher education, also provides its primary direct economic impact on Carlisle and Cumberland County.

***County and Borough Multiplier Effects***

The multiplier effect from the college expenditures also adds to the economy of the local community. For every dollar spent in the community by the College and its various employees, students, and visitors, there is a ripple effect where those receiving income from the college's spending add further to the economy by spending part of that income in the area. Those who receive income from this secondary source in turn spending part of their income locally. Theoretically at least, this process continues in an infinite series of steps. Our multiplier model for Cumberland County was derived from an input-output model (the

RIMS-II model) of Cumberland County provided by the Bureau of Economic Analysis of the U.S. Department of Commerce. This model was described in more detail in Chapter II.

Of the RIMS-II multipliers for higher education in Cumberland County, the relevant figure is the final demand multiplier for total spending. For the county this multiplier has the value of 1.6961, and an implicit marginal propensity to consume locally of 0.4104. The meaning of these numbers can be further explained by an example, the impact of the College's purchases of goods and services. As noted earlier, the College purchased a total of $12,676,291 in goods and services in Cumberland County during the 2001-2002 academic year. The total impact of Dickinson's purchases on the economy of Cumberland County would therefore equal 1.6961 x $12,676,291, or $21,500,257.17. This means that the college created $8,823,966.17 of indirect spending in Cumberland County in addition to its own local purchases.

Carlisle has a correspondingly smaller multiplier than Cumberland County because a significant fraction of spending by local businesses and employees will take place outside of the borough. Since the businesses that receive revenue from Dickinson's spending are also likely to spend this money on employee salaries and operating expenses, the nature of their multiplier effect is likely to be roughly similar to that of the college. We calculated two estimates of the portion of Carlisle area income which is likely to be re-spent in the Carlisle area. Taking the total amount of college spending in Carlisle divided by the total for Cumberland County produces a local to county spending ratio of .664. The other estimate assumes that subsequent spending by local businesses would more likely follow the pattern of college employee spending and college purchases only, since subsequent spending by business is unlikely to include anything similar to student or visitor spending. This ratio of employee spending and college purchases in Carlisle over the same totals for the county

equals $17,463,956 divided by $28,026,826, or .623. This more specific ratio of local to county spending is our preferred estimate for local over county spending, and will be used in our subsequent estimates of local economic impact.

The Carlisle area multiplier for higher education can be calculated from these ratios and the Cumberland County multiplier discussed above. As noted above and in Chapter II, the higher education multiplier for the County of 1.6961 implies a marginal propensity to consume locally ($MPC_L$) of .4104.[6] Multiplying this figure for the county $MPC_L$ by the percentage of county spending taking place in Carlisle gives us an estimate for the Carlisle area marginal propensity to consume locally. Using our local to county spending ratio of .623 produces an $MPC_L$ for Carlisle of .2557 and a local multiplier of 1.344. Using the local to county spending ratio based on total direct spending (.66) produces an $MPC_L$ of .2709, and a local multiplier of 1.372. These alternative estimates are obviously quite close, and our results therefore are not very sensitive to our choice of the smaller value.

***Total Economic Impact in Dollars***

The total economic impact of Dickinson College includes the income of College employees, direct spending by College employees, students, visitors, and summer program participants, and the additional income produced by the multiplier effects. For Carlisle this total economic impact equals $57,759,304. This total includes $21,167,000 of income for Dickinson College employees and $27,226,417 x 1.344, or $36,592,304, for the rest of the Carlisle community. For Cumberland County, the college's total economic impact in terms of total direct and indirect income equals an estimated $101,988,803. This total includes $32,166,000 in Dickinson employee income and $41,166,678 x 1.6961, or $69,822,803, in added income for the rest of the county. Adding the estimated implicit value of $1,152,344

[6] The value of the multiplier for the County equals $1/(1-MPC_L)$, or 1/(1-0.4104), or 1.6961.

from the Dickinson community's charitable activity, which does not necessarily produce a multiplier effect on income, would bring these totals to $58,911,648 for the Carlisle area and $103,141,147 for Cumberland County.

The distribution of this economic impact by program or spending source can also be presented in a table. In this case we will apply the same county and local multipliers used in our estimated total impact figures to each source of spending, with the exception of the Washington Redskins training camp for which a multiplier of 1.5 was used based on the restaurant, beverage and lodging industries.

**Table XI-2: Dickinson's Economic Impact on Area Income by Source**

| CATEGORY | CARLISLE DIRECT SPENDING | CARLISLE IMPACT | COUNTY DIRECT SPENDING | CUMBERLAND COUNTY IMPACT |
|---|---|---|---|---|
| College Employee Income | ---------- | $21,167,000 | ---------- | $32,166,000 |
| College Purchases | $9,738,636 | 13,088,727 | $12,676,291 | 21,500,257 |
| Employee Spending | $7,725,320 | 10,382,030 | 15,350,535 | 26,036,032 |
| Student Spending | $3,200,136 | 4,300,983 | 6,597,848 | 11,190,610 |
| Visitor Spending | $865,180 | 1,162,802 | 865,180 | 1,467,432 |
| Summer School Spending | $98,334 | 132,161 | 210,303 | 356,695 |
| Government Budget | $178,872 | 240,404 | 74,949 | 127,121 |
| CPYB Spending | $1,518,624 | 2,041,031 | 1,534,559 | 2,602,766 |
| CTY Spending | $900,801 | 1,210,677 | 1,028,666 | 1,744,720 |
| Redskin Camp Spending | $3,000,514 | 4,032,691 | 2,828,317 | 4,242,476 |
| Implicit Volunteer Services | ---------- | $1,152,344 | ---------- | $1,152,344 |
| **Total Spending or Impact** | **$27,226,417** | **$58,911,648** | **$41,166,678** | **$103,141,147** |

As seen in Table XI-2, the College budget for personnel and purchases provides about half of the total impact in both the County and the Carlisle Area. Others contributing at least one million dollars to the county economy include , in order, student spending, the Washington Redskins training camp, the CPYB summer program, the CTY program, and visitor spending.

***Total Impact On Employment***

Dickinson College's impact on local employment arises from exactly the same forces as its impact on income. Dickinson creates jobs directly through its own employment

opportunities, and indirectly through the effect of its spending on local businesses. This estimate is based on the RIMS-II model's ratio of college employment to total employment for Cumberland County, the employment version of the spending multiplier. This direct employment to total employment multiplier takes the value 1.4043, which is almost identical to the spending multiplier. The formula for applying this value is very straightforward, *total employment = Dickinson employment x 1.4043*. Dickinson college employs a total of 776 individuals. According to the formula, this employment alone would produce total employment for the county of 1,090.

However, our estimate would be incomplete if we didn't attempt to calculate an annualized version of the added employment provided by the non-Dickinson programs which use our facilities during the summer. As noted in previous chapters, the CTY program employed 28 professors, 28 teaching assistants, 28 resident assistants, and 14 administrators for 6 weeks each. We can estimate a full year equivalent (FYE) by multiplying the 98 total employees by 6/52, the ratio of CTY weeks to total weeks per year. The resulting full year equivalent is 11.3 employees. Similarly, the CPYB program employed 32 guest instructors and 25 dorm assistants for a total of 5 weeks. The resultant FYE equals 57 x 5/52, or 5.5 employees. The Washington Redskins employed 100 coaches and players, 50 additional staff, and drew an estimated of 33 media representatives for 4 weeks. The FYE estimate for this activity equals 183 x 4/52, or 14.1 employees. Adding the full year equivalents for these three non-Dickinson programs produces an additional 31 jobs, on average, during the year. Adding these to the 776 Dickinson jobs produces a total of 807. Multiplying this total by the employment multiplier results in an estimated total gain of 1,133 jobs in Cumberland County due to the existence of Dickinson College.

The number of jobs in Carlisle is more difficult to estimate. Unlike income, employment is usually measured geographically by the location of the employer. Therefore all 807 jobs produced by Dickinson and related programs are located in Carlisle. The additional 326 jobs produced indirectly by college related spending are likely to be distributed across the county in a manner similar to that of spending. Using the ratio of total direct spending in the Carlisle area to total spending in the county (.66) we estimate that 215 of the 326 additional jobs are in the Carlisle area. Adding this estimate to the direct employment figure of 807 produces an estimate of 1,022 additional jobs in the Carlisle area due to the existence of the college.

***Alternative Calculations***

One additional step which is useful in checking the reliability of our estimates is to perform some alternative calculations based on simpler economic models, and to compare these estimates with those from our detailed study. For example, the College reported a total budget, net of financial aid, of $68 million dollars for the 2001-2002 academic year. A simple economic impact estimate for Cumberland County can be calculated by multiplying this total spending figure by the county multiplier for higher education, 1.6961. This produces an estimated economic impact for the county of $115.3 million dollars, which is almost 12 percent higher than our detailed estimate. Similarly, a simple employment estimate can be found by taking this same budget number and multiplying by the RIMS-II final demand/employment multiplier value of 18.9928 jobs per million dollars. This produces an estimate of 1,292 jobs in the county. This figure is also moderately higher than our detailed estimate of 1,133 jobs. These simple estimates indicate that our detailed estimates are likely to be reasonably accurate and somewhat conservative.

***Conclusion***

In summary, Dickinson College represents a significant economic, social, and cultural asset to the Carlisle area, particularly through its positive effects on local income, employment, and its various cultural and charitable contributions to the Carlisle community. As with all such studies, the specific numerical results of these effects are certainly subject to question. We have attempted to discuss in detail the data, theories, mathematical models, and assumptions used in compiling these estimates in an accessible manner in order to avoid hiding behind technical terminology or incomplete explanations. Our success in this endeavor may vary widely across this study's potential readership.

This study lacks some information which would be present in the ideal study, particularly regarding the college's impact on real estate values, business property and other tax payments, rental property tax payments, some elements of college spending, and monetary donations to local charitable institutions. In most cases the impact of this missing information is to reduce the estimates of the college's economic impact. However, to my knowledge the perfect study has yet to be written. The estimates of Dickinson College's economic impact presented above are reasonable and conservative, and do not represent a disservice to the college or disinformation to the community. The most significant challenge for the authors, and perhaps for the reader, is to imagine what Carlisle would be like without its more than two-hundred year association with Dickinson College. Such a thought clarifies the challenges associated with completing such a study, and the interesting issues arising from its conclusions.

# Appendix I: Spending Surveys

## Dickinson College Economic Impact Study: Employee Questionnaire

### *I. Household Information*

1. Where do you live?
   ___Borough of Carlisle
   ___Neighboring townships (South Middleton, etc.)(which?_____)
   ___Other, Please specify (_____)

2. In which school district do you reside?

   Carlisle____, Boiling Springs____, Big Spring____, Cumberland Valley___,

   other(which?)_____

3. How many people live in your household? _____

4. Of these, how many are school age children? _____

5. Which job category best describes your role at the College?

   administrator ____, faculty____, academic professional ____, office staff ____, buildings and grounds employee____, food service employee____, other____.

6. What are the occupations and places of employment of every employed member of your household? (including any **other** jobs you have).

| Occupation | Location of Employment (borough, township, etc) |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

7. What is your household's combined total income for 2001 (this is important for determining some tax and spending estimates, as well as economic impact. It will be kept **totally confidential**)

   before taxes $ _____ after taxes $ _____

8. About how much did your family put into savings and investments during 2001?

   $_____

### II. Spending

9 Do you rent___ or own___ your residence?

10. **If you rent**, what is your monthly rent? _____

11. **If you own** your home, approximately how much property tax do you pay per year?

    to your borough or township _____ to your school district?_____

12. What is your monthly mortgage payment, excluding taxes?_____

13. Please give the name and location of your primary mortgage lender_____

14. For everyone, about how much is your total monthly bill for all utilities?_____

local phone_____, electricity_____ gas _____ heating oil_____
cable TV_____ internet service (which? _____) _____, other_____?

15. Of your **Carlisle** shopping (if any), which of these locations do you shop at most often?
Downtown or near campus ___, the Plaza Mall area (Bonton, Giant, etc.)____,
Walnut Bottom Road (Nell's, K-Mart, etc)___ , Spring Rd/Harrisburg Pike____,
other (where) _____?

16. Please list the Carlisle businesses from which you most often make purchases, including groceries, and how often you buy from each.

| Place | times per month | avg. amount per trip |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

17. About how much money do you spend in the last month in Cumberland County on each of the following and where?

| | Carlisle Area | elsewhere in Cumberland county |
|---|---|---|
| a. Clothing | _____ | _____ |
| b. Food | _____ | _____ |
| c. Entertainment | _____ | _____ |
| d. Automobile payments and maintenance | _____ | _____ |
| e. other | _____ | _____ |
| e. religious contributions | _____ | _____ |
| f. health and education (excluding Dickinson) | _____ | _____ |
| e. Total spending | _____ | _____ |

## III. Community Relations

18. Please list any charitable, cultural, religious, or other activities in which any member of your household is involved which benefit the Carlisle community.

_____

_____

19. About how many hours per week does your family devote to service projects of all types? None___ 1-3___ 4-6___ 7-10___ 11-15___ over 15 (how many?)_____

20. In your opinion are there any other benefits, direct or indirect, which the community receives due to the presence of the College? If so, what are they?

_____

_____

**Thank you very much**. Please return this to the Economics Department at your earliest convenience. All individual survey responses will be kept **totally confidential. If you have questions, call me at 245-1358. You don't have to identify yourself.**

## Dickinson College Economic Impact Study: Student Questionnaire

**I. Spending**

**1.** What is your class status at the college?

Freshman____ Sophomore____ Junior _____ Senior_____

**2.** What is your gender? Male____, Female____

**3.** Where do you reside? on campus_____ off campus in Dickinson Housing?

___ off campus in Non-Dickinson Housing ____

**4. If you reside off campus in non-Dickinson housing,**

**A. approximately what is your monthly rent?** _____

B. about how much per month do you pay for all utilities?_____ local phone_____, electricity_____ gas _____ heating oil_____ cable TV_____ internet service (which? _____) _____, other_____?

**5**. Approximately how much do you spend off campus in Cumberland County in a given month for each of the following items?

| | in Carlisle | elsewhere in Cumberland County (Shippensburg to Susquehanna River) |
|---|---|---|
| Food, drink, groceries | _____ | _____ |
| Clothing | _____ | _____ |
| Entertainment | _____ | _____ |
| Automobile expenses | _____ | _____ |
| Other | _____ | _____ |
| TOTAL Monthly Budget | _____ | _____ |

**7**. About how many times per week do you dine out or have food delivered? _____

**8.** Does most of your off-campus spending take place (check one)

____Downtown or near campus (Hanover or High Streets, Deli-C, etc.), _____ the Plaza Mall area (Bonton, Giant, etc.), _____ Walnut Bottom Rd (Nell's, K-mart, Staples, etc), or

____other (where)_____?

**9.** Do you have any accounts with a local bank or S&L? Yes_____ No_____

**10.** Please list the places off campus from which you most often make purchases, including groceries, and how often you buy from each.

| **Place** | **times per month** | **avg. spending per visit** |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

**11.** Approximately how many visits from non-Carlisle relatives or friends did you have in the Fall semester? Each visit from a given person should be counted separately.

_____

**12.** How many of these visits involved staying in off campus lodging?_____

## II. Community Relations

**13**. Please list any charitable, cultural, or other activities which may benefit the Carlisle community (if you aren't sure about who benefits, include it)

_____

_____

_____

_____

_____

**14.** About how many hours per week do you devote to service projects of all types?

None___ 1-3____ 4-6___ 7-10___ 11-15___ over 15 (how many?)_____

**15.** In your opinion, are there any other possible benefits to Carlisle from the college besides economic and cultural contributions? What are they?

_____

_____

_____

_____

Thank you very much. Please return this survey to the Economics Department at your earliest convenience. **All individual survey results will be totally confidential**.

## Dickinson College Economic Impact Study: Summer Student/Employee Questionnaire

1. Gender?

   Male_____ Female_____

2. What College do you regularly attend?

   Dickinson___ Gettysburg___ Shippensburg___ Other(which?)_____

3. What is your class year at the college?

   Freshman_____ Sophomore_____ Junior_____ Senior_____

4. Where do reside while at Dickinson?

   With my family____ Dickinson dorms or apartments____

   non-Dickinson housing_____ Other_____

5. How long will you be at Dickinson this summer? first session___ both sessions ___

6. Approximately what are your estimated housing costs?

   Rent per month (or session)_____ monthly utility bills_____

7. Approximately how much do you spend in the Carlisle area in a given month for each of the following items?

   _____Food and drink

   _____Clothing

   _____Entertainment

   _____Automobile expenses (Parking, Gas, Service, etc.)

   _____Other

   _____TOTAL Monthly Budget, excluding rent and utilities

8. Approximately how many times per week do you dine out or have food delivered?____

9. Where does most of your off-campus spending take place

Downtown____ Plaza Mall/Giant area_____ near Campus_____

Walnut Bottom Rd (Nell's/K-Mart, etc) _____ Other(where?)_____

10. Please list the places from which you most often make purchases.

| Place | times per week | avg. spending per visit |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

## Dickinson College Economic Impact Study: Summer Youth Program Questionnaire

This survey is part of a study of the economic impact of Dickinson College. Please take a few minutes to fill out this brief spending survey to the best of your ability. All answers will be completely anonymous. We appreciate you cooperation and hope you enjoy your stay at Dickinson College.

1. Gender? Male_____ Female_____
2. Age? Under 10_____ 10-15_____ 16-20_____ Over 20_____
3. What is your hometown?

   Carlisle_____ Other(Where?)_____
4. What summer program are you on campus with?

   C.P.Y.B._____ C.T.Y._____ Basketball Camp_____ Other_____
5. While staying at Dickinson, approximately how much do you spend in a given week for each of the following items?

| | Carlisle Area | Elsewhere in Cumberland County |
|---|---|---|
| Food and drink | _____ | _____ |
| Clothing | _____ | _____ |
| Entertainment (movies, etc.) | _____ | _____ |
| Other | _____ | _____ |
| TOTAL Weekly Budget | _____ | _____ |

6. About how many times per week do you dine out or have food delivered?_____
7. Where does most of your spending take place?

   on or near Campus____ Downtown_____ MJ Mall area (movies)_____

   Plaza Mall/Giant area (Bon-ton, etc)_____ other (where?)_____
8. Please list the places from which you most often make purchases.

| Place | times per week | avg. spending per visit |
|---|---|---|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

9. **Excluding your arrival and departure**, how often have or do you expect your parents or others to visit Carlisle?

   0 times_____ 1-2 times_____ 3-4 times_____ 5 or more_____
10. How many of these visits resulted in a stay in overnight lodging? _____ # of nights____
11. About how much money do your visitors spend in the area during one visit?_____

**Thank you very much for your cooperation.**

# Dickinson College Economic Impact Study:
## Summer Visitors Questionnaire

This survey is part of an economic impact study of Dickinson College undertaken by Professor Bellinger and his Economic Analysis of Policy class in the Spring and continuing this Summer. Please take a few minutes to fill out this brief spending survey to the best of your ability. All answers will be completely anonymous. We appreciate you cooperation and hope you enjoy your visit to Dickinson College.

1. Where is your home town? *Carlisle or Cumberland County____, Elsewhere in Pennsylvania (where please?)_____ Out of state? (Where please?)_____*

2. How many times have you visited Dickinson College this year?

   *this is the first___ , 2 including this visit___ , 3____, 4 or more ___.*

3. What is the purpose of your visit today? (check all that apply)

   *Campus Tour_____ Interview____ Information Session____*

   *Admissions Open House_____ other_____*

4. How many people are in your party?_____

5. How many nights will you be staying in Carlisle during this visit?

   *zero____ one____ two____*

6. If you are staying overnight in Carlisle , please tell us where.

   *Near turnpike (Knights Inn, Best Western, Holiday Inn, Clarion, etc.)_____*

   *Walnut Bottom Rd. (Days Inn, Motel 8, etc) _____ Downtown (Comfort Suites)_____* Other (where?) _____

7. If you are staying in a hotel or motel elsewhere, please tell us where.

   *Harrisburg area___ Gettysburg___ Lancaster_____ elsewhere (where??_____)*

8. How many restaurant meals does your group plan on eating during this visit?_____

9. Please write the number of meals your group expects to eat at each type of restaurant:

   *Fast food____, Moderately priced____, Gourmet ($15 or more)_____*

10. Will you be doing any other shopping on the area? *yes____ no_____*

11. If yes to #10, about how much do you plan to spend on the following during your visit?

   _____*Entertainment*

   _____*Auto maintenance and gasoline*

   _____ *Other (clothing, books, souvenirs, etc.)*

**Thank you very much for your cooperation.**

# Dickinson College Economic Impact Study: Redskin Visitor Questionnaire

This survey is part of an economic impact study of Dickinson College, and another of the Washington Redskins Summer Camp. **ALL ANSWERS WILL BE COMPLETELY ANONYMOUS.** We appreciate your cooperation and hope you enjoy your visit to Dickinson College.

IF YOU'RE NOT FROM CARLISLE, PLEASE FILL OUT THIS SIDE

1. Gender?

   Male____ Female_____

2. Where do you reside?

   Cumberland County ___ D.C. area_____ Other(where?)_____

3. How many other people did you travel with here today?

   0 others_____ 1 other_____ 2-3_____ 4-8_____ Bus_____

4. Did you come here with an organized group? Yes____ No____

   If yes, what is the group's name?_____

5. How many times will you visit this Redskin camp at Dickinson this season?

   1 time_____ 2-3 times_____ 4-6 times _____ 7 or more_____

6. If you do not reside in Carlisle, how many of these visits involved staying in overnight lodging?_____ # of nights per stay?_____

7. Approximately how much do you expect to spend in the Carlisle area during your visit for each of the following items?

   _____Food and drink

   _____Souvenirs/Clothing

   _____Entertainment

   _____Automobile Expenses (gas, parking)

   _____Motels or other lodging

   _____Other

   _____TOTAL

8. While here, where does your off-campus spending take place? (Check all that apply)

   Downtown Carlisle____ near Dickinson's Campus____ Near I-81 or the Turnpike____ other(where?)_____ no idea_____

**Thank you Very much for your cooperation.**

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## CARLISLE AREA RESIDENTS ONLY

1. Where do you live:

   Carlisle borough___ nearby borough or township (which?)_____

2. Gender?

   Male____ Female_____

3. How many times will you visit this Redskin camp at Dickinson this season?

   1 time_____ 2-3 times_____ 4-5 times _____ 6 or more_____

4. How many other people did you travel with here today?

   0 others_____ 1 other_____ 2-3_____ 4-6_____ 7 or more____

5. What types of extra spending will you be doing today because of your visit? (check all that apply).

   None____ a few bucks on snacks____ some spending on souvenirs____

6. About how much extra will you spend in total, if any? _____

7. Please add any comments on the benefits or costs of the Redskins Camp for Carlisle.

_____

_____

_____

_____

_____

**Thank you Very much for your cooperation.**

**Brief Business Survey on the Impact of the Washington Redskins Training Camp**

This survey is part of an economic impact study of the Washington Redskins on Carlisle and Cumberland County. We would deeply appreciate your cooperation in filling out this brief and general survey. If you wish, your answers will be completely confidential.

**1.** Check your Location: Near Dickinson_____ Downtown Carlisle_____

South Carlisle, MJ Mall area_____ Western Carlisle/Walnut Bottom Rd _____

East Carlisle/Plaza Mall area_____ Northeast Carlisle, Turnpike area_____

North Carlisle/Spring Rd area_____

**2.** What is your primary business food____ beverage____

hotel/motel____ financial___ film/entertainment____ gas/oil____

clothing/shoe auto repair____ other (what?)_____

**For questions 3-5, please use percentages, not dollar amounts**

**During the first week of this year's Redskin's Summer Training Camp**

**3.** Did your sales revenue change?

Yes___ No___ If yes, by what percentage? _____

**4.** Did your number of customers change?

**Yes___ No___ If yes, by what percentage? _____**

**5.** Did your profits change?

Yes___ No___ If yes, by what percentage?_____

**6.** Do you believe that the Redskins camp benefits the local economy?

A great deal____ A minor amount_____ Not at all_____

**7.** Do you believe that the Redskins camp benefits the Carlisle Community?

A great deal_____ A minor amount_____ Not at all_____

Comments_____

_____

_____

**8.** What is the name of your business? (please leave blank if you wish to remain anonymous) _____

**Thank you very much for your cooperation.**

# Appendix II : List of Taxable and Tax-Exempt Properties

## Table I: Taxable Property

| LOCATION | BUILDING TYPE | ASSESSED VALUE |
|---|---|---|
| 598 W. High | CC | $257,950 |
| 560 W. High | C | 270,000 |
| 31 S. West | C | 96,000 |
| 33 Conway | R | 168,240 |
| 41 Conway | R | 200,700 |
| 50 Mooreland | C | 1,502,030 |
| 103 Conway | R | 203,870 |
| 531 W. Louther | R | 77,720 |
| 519 W. Louther | R | 65,890 |
| 5 N. Orange St. | CW | 2,928,910 |
| 538 W. Louther | R | 68,420 |
| 227 N. College | R | 71,910 |
| 156 N. College | C | 58800 |
| 135 N. College | RC | 67740 |
| 275 W. Louther | R | 225610 |
| 261 W. Louther | L1 | 12,100 |
| 243 W. Louther | CO | 122,400 |
| 169 W. High | CO | 349,440 |
| 165 W. High | CA | 244,080 |
| 163 W. High | CA | 286,700 |
| Harrisburg Pike | AA | 368,340 |
| 575 Park Dr. | A | 487,000 |
| 553 Park Dr. | A | 430,600 |
| Bears Rd. | CZ | 76,800 |
| 1290 Ritner Highway | A | 268,790 |
| 1250 Ritner Highway | CC | 752,700 |
| 256 S. Hanover | RA | 445,010 |
| 158 N. College | R | 67,600 |
| 61 N. West | R | 147,260 |
| 57 S. College | R | 140,590 |
| TOTAL | | $10,463,200 |

**Table II: Tax-Exempt Property**

| LOCATION | BUILDING TYPE | ASSESSED VALUE |
|---|---|---|
| 600R W. Louther | daycare | $399,120 |
| W. Louther | warehouse | 772,210 |
| 201 W. High | office | 3,763,200 |
| 529 W. Louther | Residential Land | 66,730 |
| W. Church Ave. | School/storage | 1,302,630 |
| 101 S. College | School/office | 292,450 |
| 218 W. Church Ave. | Storage | 477,000 |
| 41 S. College | Dorm | 251,180 |
| 262 W. High | dorm | 154,100 |
| 240 W. High | Social | 4,759,300 |
| 228 W. High | n/a | 108,000 |
| W. High | Dorm | 694,000 |
| 49 N. West | Office | 215,040 |
| W. Louther | School/office/other | 4,445,900 |
| 233 W. Louther | Apartment | 77,000 |
| 255 W. Louther | Office | 72,960 |
| 259 W. Louther | n/a | 10,800 |
| 277 W. Louther | School | 11,817,600 |
| N. College | n/a | 13,480 |
| 127 N. College | n/a | 9,450 |
| 601 W. High | Office/restaurant | 11,158,920 |
| W. High | apartment | 2,908,230 |
| 102 S. College | School/appendage | 7,619,150 |
| 402 W. High | Dorm | 1,062,460 |
| 24 Mooreland Ave. | n/a | 66,000 |
| 30 Mooreland Ave. | n/a | 67,500 |
| 60 Mooreland Ave. | Dorm | 441,980 |
| 131 S. College | Dorm | 195,840 |
| Belvedere St. | Other/storage | 3533,270 |
| Ritner Highway | Other | 1,035,380 |
| 159 W. High | Apartment | 223,650 |
| 170 W. Louther | Apartment | 139,760 |
| 55 N. West | Residential land | 121,540 |
| 239 W. Louther | office | 113,190 |
| 249 W. Louther | Office/garage | 96,000 |
| 139 N. College | Residential land | 76,230 |
| 140 N. College | Office/apartment | 77,670 |
| 301 W. Louther | School | 1,263,200 |
| 556 W. Louther | Residential land | 102,540 |
| 554 W. Louther | | 82,940 |
| 417 W. Louther | Residential land | 72,470 |
| 425 W. Louther | Residential land | 65,430 |

| | | |
|---|---|---|
| 505 W. Louther | Residential land | 74,920 |
| 521 W. Louther | Residential land | 76,330 |
| 527 W. Louther | Residential land | 62,550 |
| 488 W. High | Dorm | 77,100 |
| 450 W. High | Office | 115,180 |
| 34 S. West | School/garage | 318,100 |
| 46 S. West | School | 195,200 |
| 59 S. College | Residential land | 187,020 |
| 272 W. High | office | 638,470 |
| TOTAL | | $1,970,370 |

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